

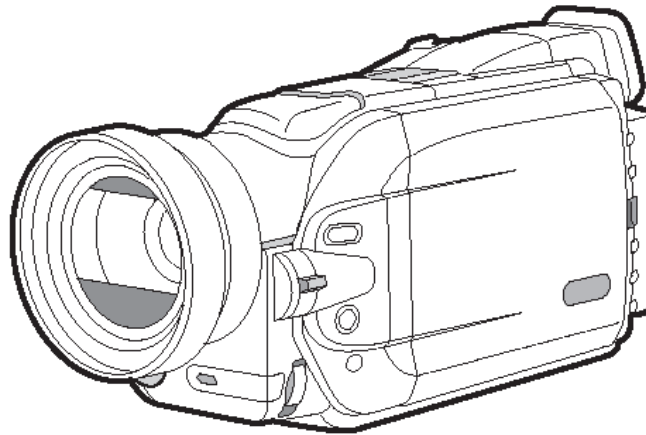
Service Manual

Mini **DV** PAL

MultiMediaCard™
SD™

Digital Video Camera/Recorder
AG-EZ50UP

Q3-MECHANISM



Please refer to the information of Q3-Mechanism (Order No.BSD0109M023) and Electrical Adjustment Procedures (Order No.BSD0109M024) are described in the CD-ROM Service Manual (Order No.BSD01101K0X).

Panasonic

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WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products deal with in this service manual by anyone else could result in serious injury or death.

Specifications

Digital Camera/Recorder Information for your safety

Power Source:	DC 7.8/7.2 V
Power Consumption:	Recording 7.0 W
Recording Format:	Mini DV (Consumer-use Digital Video SD Format)
Tape Used:	6.35 mm digital video tape
Recording/Playback Time:	SP: 80 min.; LP: 120 min. (with DVM80)
Video	
Recording System:	Digital Component
Television System:	EIA Standard: 525 lines 60 Fields NTSC color signal
Audio	
Recording System:	PCM Digital Recording 16 bit (48 kHz/2track), 12 bit (32 kHz/4track)
Image Sensor:	1/6-inch 3 CCD Image Sensor
Lens:	Auto Iris, F1.6, Focal Length; 2.85-28.5 mm, Macro (Full Range AF)
Filter Diameter:	37 mm
Zoom:	10:1 Power Zoom
Monitor:	3.5-inch Polycrystalline Silicon Active Matrix TFT LCD
Finder:	Color Electronic Viewfinder
Microphone:	Stereo
Speaker:	1 round speaker 20 mm
Standard Illumination:	1,400 lx
Minimum Required Illumination:	15 lx
Video Output Level:	1.0 Vp-p, 75 ohm
S-Video Output Level:	Y Output: 1.0 Vp-p, 75 ohm C Output: 0.286 Vp-p, 75 ohm
Audio Output Level:	316 mV, 600 ohm
Video Input Level:	1.0 Vp-p, 75 ohm
S-Video Input Level:	Y Input: 1.0 Vp-p, 75 ohm C Input: 0.286 Vp-p, 75 ohm
Audio Input Level (Line):	316 mV, 10 kohm or more
Mic Input:	Mic sensitivity -50 dB (0 dB = 1 V/Pa, 1 kHz) (Stereo mini jack)
Digital Interface:	DV Input/Output Terminal (i.LINK, 4-pin)
Dimensions:	3-5/8(W)× 2-7/8 (H)× 7-5/8 (D) inch 72 (W)× 90 (H)× 195 (D) mm
Weight:	1.48lbs. (0.67 kg) (without Battery and DV cassette)
Operating Temperature:	32 °F -104 °F (0 °C-40 °C)
Operating Humidity:	10%-80%

Card Memory Functions

Recording Media:	SD Memory Card, MultiMediaCard
Image Compression:	JPEG

AC Adaptor Information for your safety

Power Source:	AC 110-240 V, 50/60 Hz
Power Consumption:	18 W
DC Output:	DC 7.8 V, 1.4 A (Camera/Recorder Operation) DC 8.4 V, 1.2 A (Battery Charging)
Dimensions:	2-3/4 (W) × 1-3/4 (H)× 4-9/16 (D) inch 70 (W) × 45 (H) × 116 (D) mm
Weight:	0.363lbs. (0.165 kg)

Weight and dimensions shown are approximate.
Designs and specifications are subject to change without prior notice.

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. The resistance value must be more than $5M\Omega$.

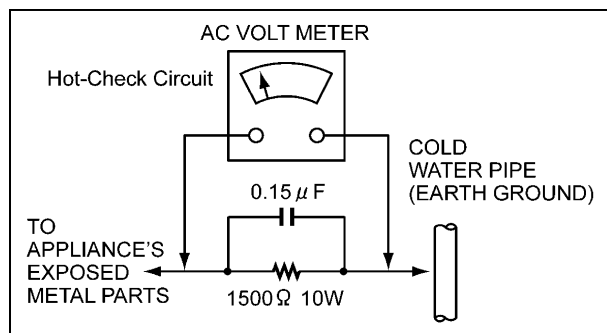


Figure1

LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet.
Do not use an isolation transformer for this check.
2. Connect a $1.5k\Omega$, 10W resistor, in parallel with a $0.15\mu F$ capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.15 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 0.1 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.
Alternatively, obtain and wear a commercially available discharging wrist trap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
(most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpacked replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

X-RADIATION

WARNING

1. The potential source of X-radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing x-radiation.

Note : It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate $2.5kV, \pm 0.15kV$. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an x-radiation possibility, it is essential to use the specified picture tube.

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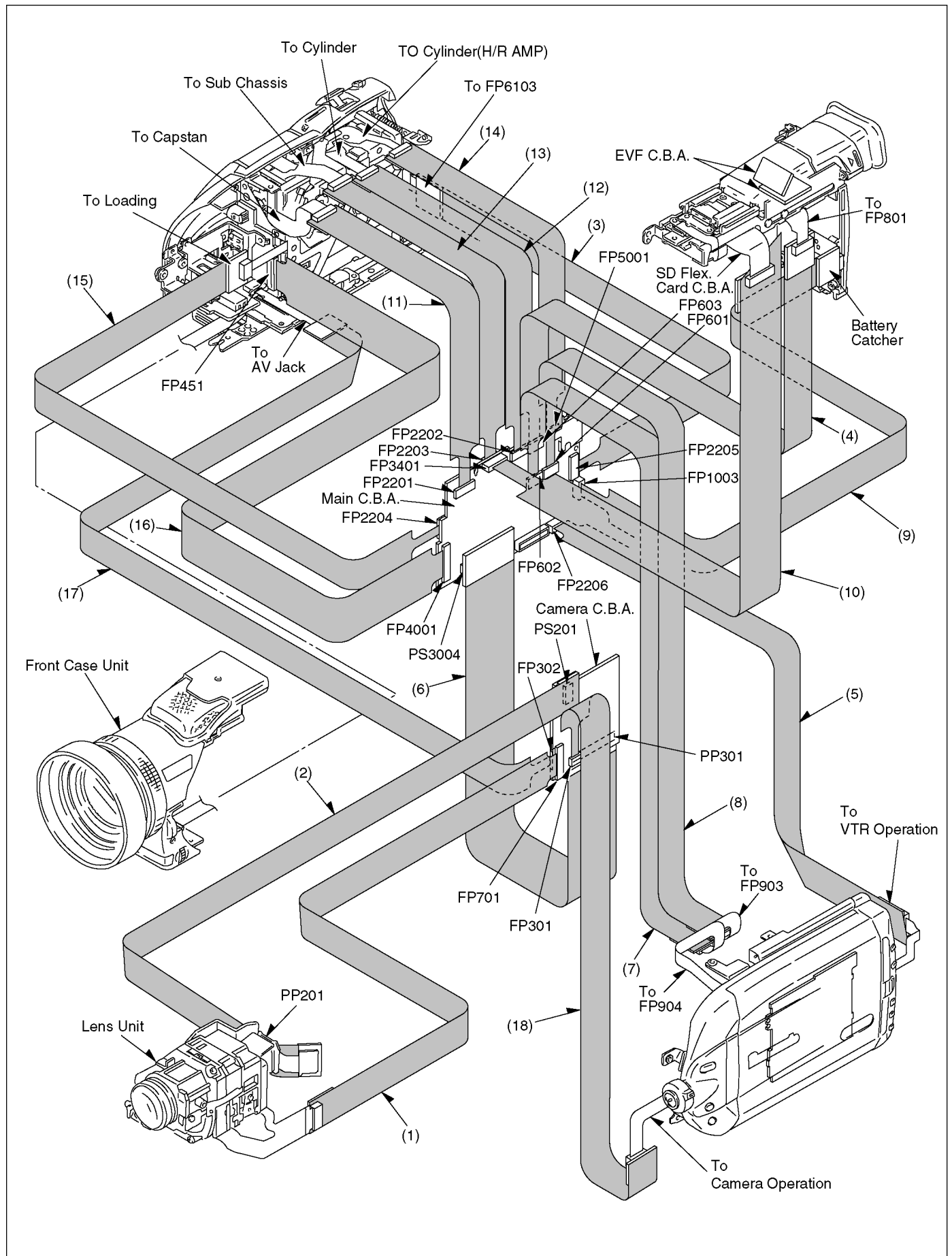
1 SERVICE INFORMATION

1.1. SERVICE EXTENSION CABLES.

This models is required the following extension cables for all connections.

Use the following extension cables when checking or adjusting individual circuit boards.

Ref.	Part No.	Pin	Part Name	Connection
(1)	VFK1575C4520	45	Flat Cable	FP701(Camera)<->LENS FPC
(2)	VFK1490	34	Flat Cable	PP201(CCD)<->PS201(Camera)
(3)	VFK1575C3320	33	Flat Cable	FP2205(VTR Main)<->FP6103(GRIP)
(4)	VFK1442	21	Flat Cable	FP603(VTR Main)<->FP801(EVF)
(5)	VFK1443	18	Flat Cable	FP2206(VTR Main)<->VTR-OP
(6)	VFK1582BD020	120	Flat Cable	PS3004(VTR Main)<->PP301(Camera)
(7)	VFK1452	17	Flat Cable	FP602(VTR Main)<->FP904(MONITOR)
(8)	VFK1442	21	Flat Cable	FP601(VTR Main)<->FP903(MONITOR)
(9)	VFK1364	14	Flat Cable	FP1003(VTR Main)<->BATTERY CATCHER
(10)	VFK1443	18	Flat Cable	FP3401(VTR Main)<->SD
(11)	VFK1443	18	Flat Cable	FP2201(VTR Main)<->CAPSTAN
(12)	VFK1440	10	Flat Cable	FP2202(VTR Main)<->CYLINDER
(13)	VFK1443	18	Flat Cable	FP2203(VTR Main)<->SUB CHASSIS
(14)	VFK1441	8	Flat Cable	FP5001(VTR Main)<->CYLINDER(H/RAMP)
(15)	VFK1441	8	Flat Cable	FP2204(VTR Main)<->MECA(LOADING)
(16)	VFK1575C5720	57	Flat Cable	FP4001(VTR Main)<->FP451(DV Jack)
(17)	VFK1480	6	Flat Cable	FP4973(AV Jack)<->FP302(Camera)
(18)	VFK1441	8	Flat Cable	FP301(Camera)<->CAM-OP



2 PREPARATION FOR ELECTRICAL ADJUSTMENT

1. Unlock the locking tab and remove the EVR connector cover which is located on Battery Catcher Unit as follows.
2. Then connect the following cables as shown in Fig. E2.

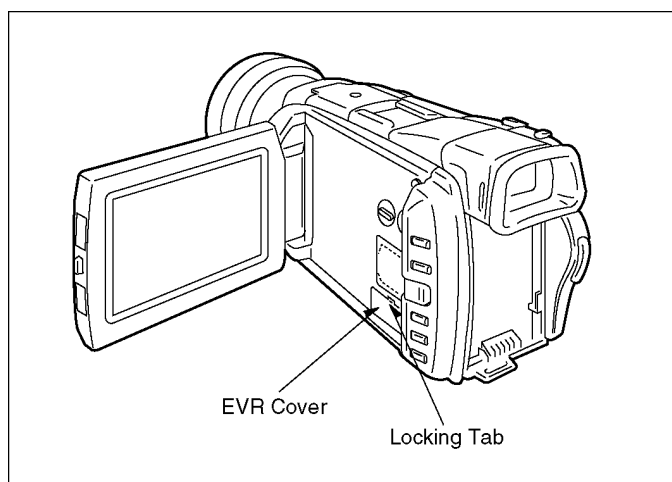


Fig E1

Part No.	Part Name	Q'ty	Remarks
VFK1395	232C(M3)I/F Cable	1	
VFK1308E	Measuring Board	1	
VFK1309	EVR Connector Board	1	
VFK1317	30 Pin Flat Cable	2	
VJA0941	DC Output Cable	1	For AC Adaptor
VFK1164TAR37	Step Up Ring	1	For Collimator
VFK1309EX	Connection Adaptor	2	

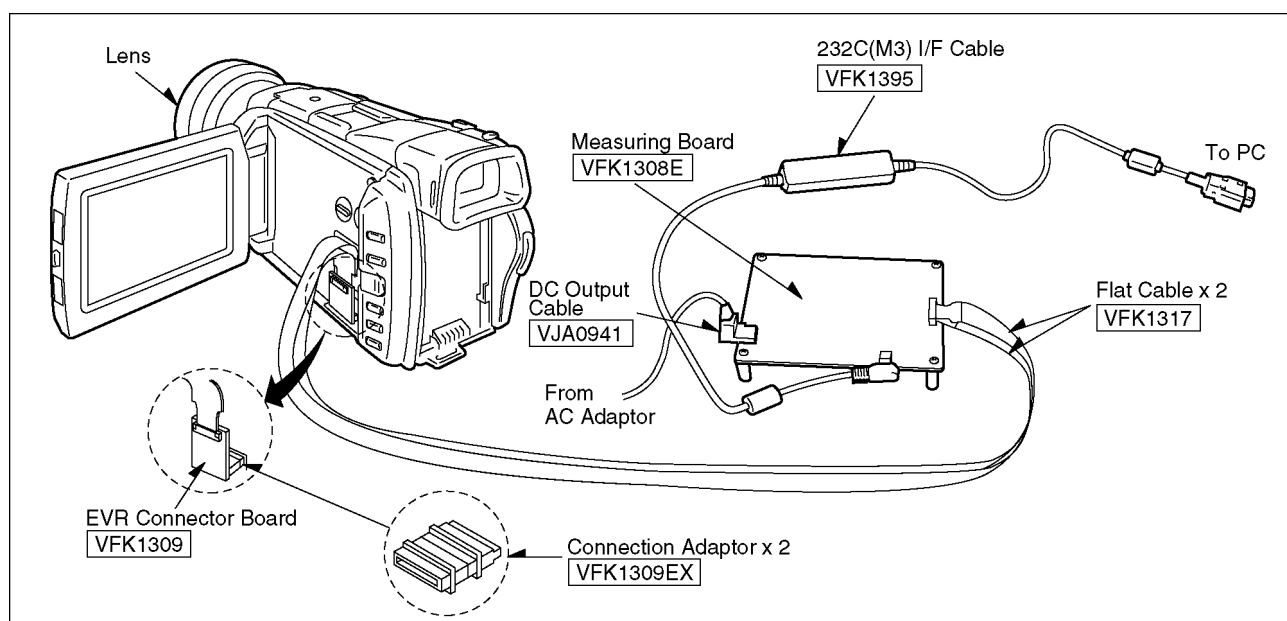


Fig. E2

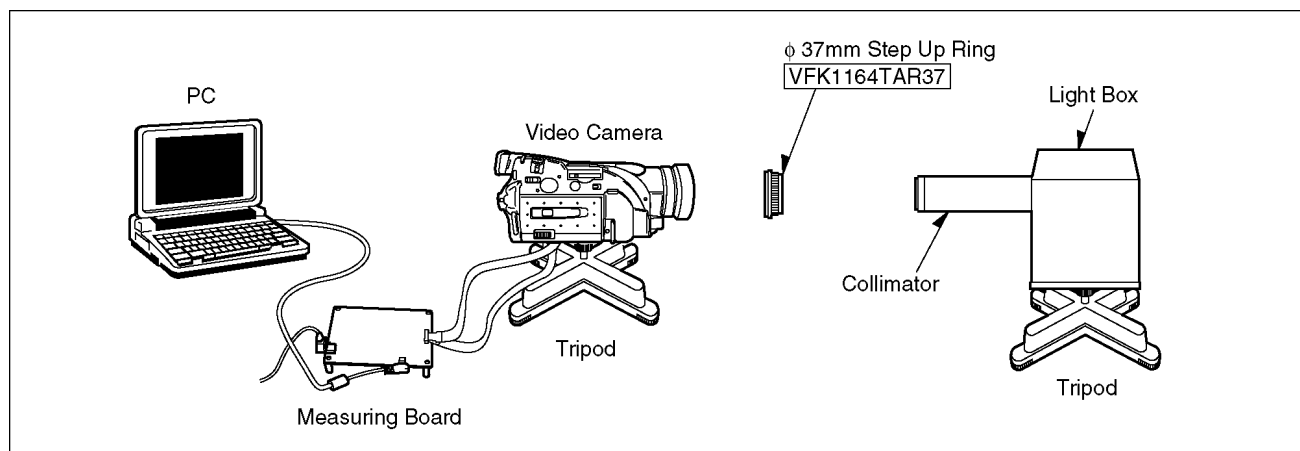


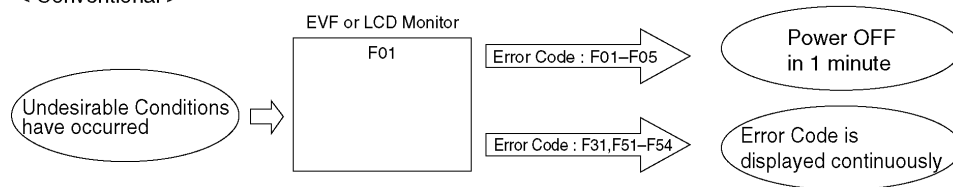
Fig. E3

3 SERVICE MODE

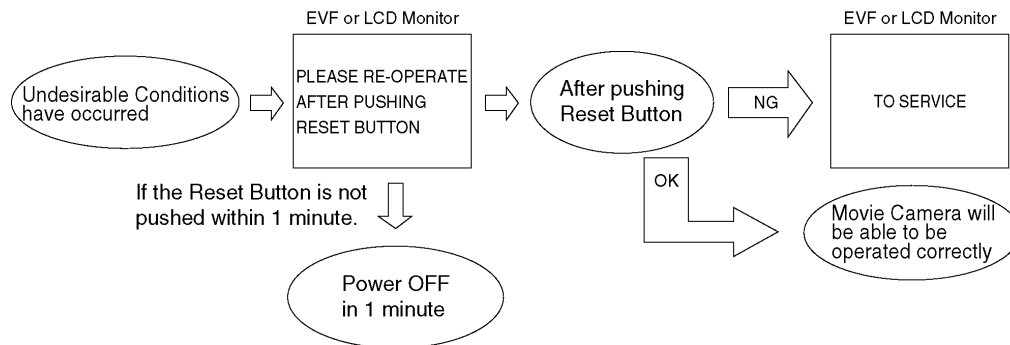
3.1. New Error Code Display

Conventionally, the error code has been displayed automatically on the EVF or LCD Monitor when undesirable conditions have occurred. With the New Error Code Display, the error code has not been displayed automatically as follows except some error codes F31(Data Transmission Error), U10(Dew) and U11(Head Clogging).

< Conventional >



< New >



Note:

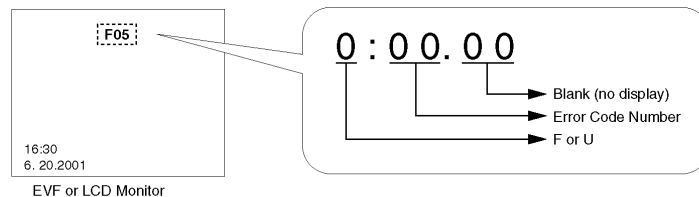
1. The only some error codes F31, U10 and U11 has displayed automatically on the EVF or LCD monitor as usual.
2. The Power LED also has been flashed for 1 min. when undesirable condetions have occurred.(See below)

3.2. Viewing Error Code

When displaying the Error Code on the EVF or LCD Monitor, push the FADE/STOP and REC START/PAUSE buttons simultaneously for more 3 seconds.

Note:

When the cassette tape is inserted, this operation will not be worked.



DISPLAY	CONDITION	POWER OFF TIMING / POWER LED FLASHING TIMING
F01	T-Reel Lock	After 1 minute flashing the LED
F02	S-Reel Lock	After 1 minute flashing the LED
F03	Unloading Lock	After 1 minute flashing the LED
F04	Loading Lock	After 1 minute flashing the LED
F05	Cylinder Lock	After 1 minute flashing the LED
F31	Data Transmission Error	Not turning OFF
F51	Focus Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
F52	Zoom Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
F53	OIS Lock 1 (Sensor)	Not turnig OFF
F54	OIS Lock 2 (Actuator)	Not turnig OFF
U10	Dew Detection	After 18 seconds flashing the LED Power LED is flashed at 1 Hz timing
U11	Head Clogging	Not turning OFF

4 HOW TO REPLACE THE LITHIUM BATTERY (PROCEDURE)

1. Remove the Grip C.B.A. from Side Case (L). (Refer to Disassembly Procedures.)
2. Unsolder the Lithium Battery "VSB0407" and then replace the new one. (See Fig. B1.)

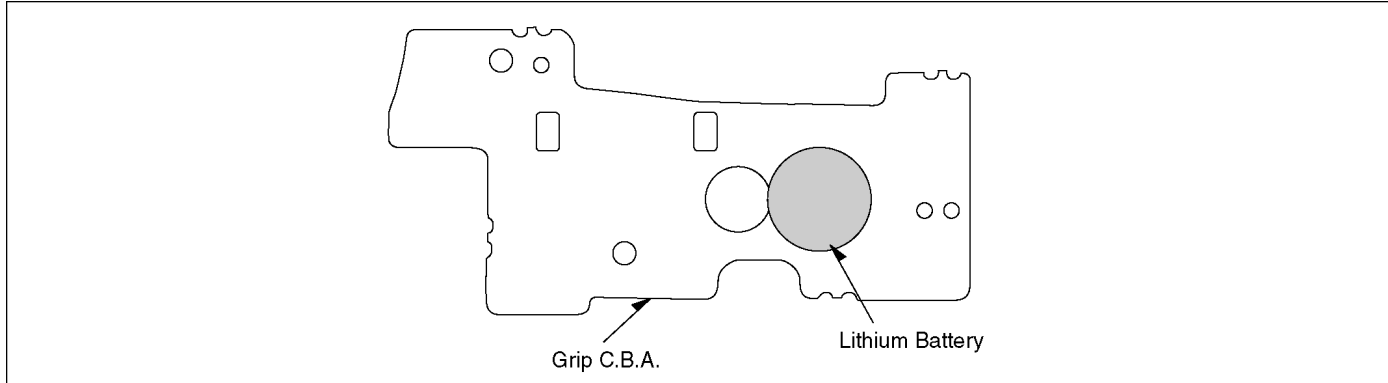


Fig. B1

Note:

The lithium battery is a critical component. (Type No.: VSB0407 Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

VARNING

**Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.**

ADVARSEL!

**Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.**

VAROITUS

**Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti.**

5 DISASSEMBLE PROCEDURES

5.1. DISASSEMBLE FLOW CHART

This flow chart indicates the disassembly steps the cabinet parts, C.B.A. and Mecha. Unit in order to access to be serviced. When reinstalling, perform the steps in the reverse order.

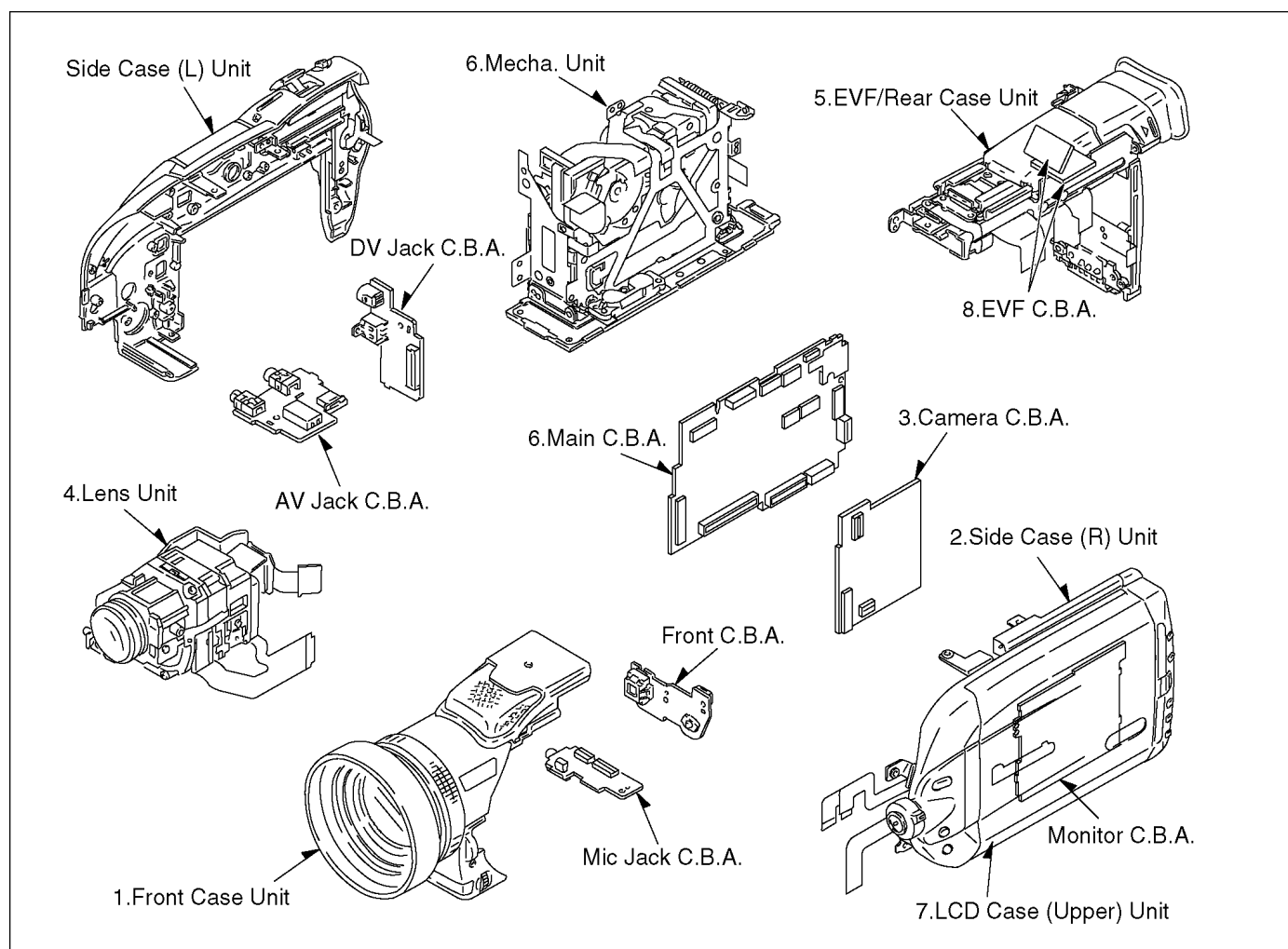
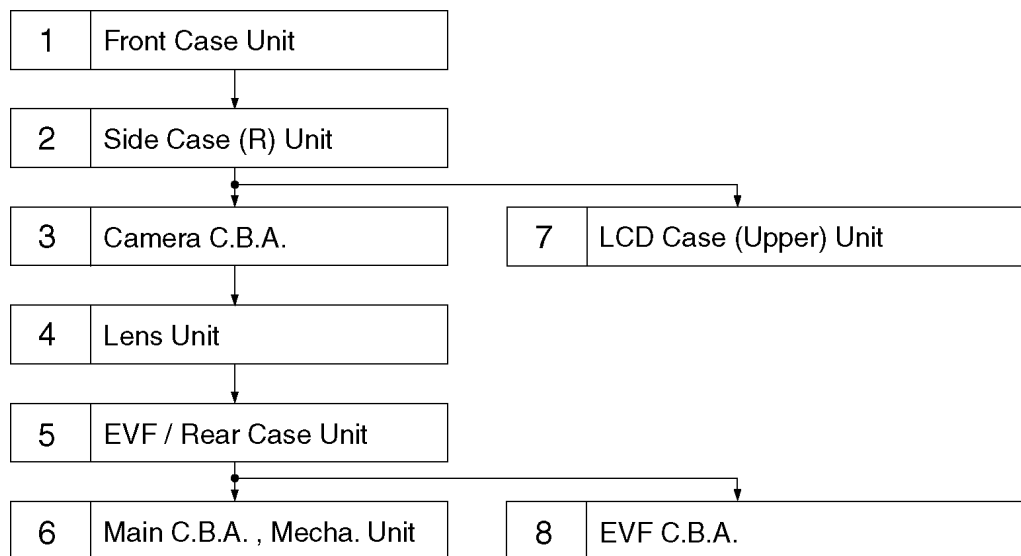


Fig. F1

5.2. DISASSEMBLY PROCEDURES

Flow-Chart for Disassembly Procedure

No.	Item/Part	Fig.	Removal (Screw & Other)
(1)	Front Case Unit	Fig. 1	2-Screws (A/B)
		Fig. 2	2-Screws (B) Remove the Front Case Unit. Disconnect the FP4901.
(2)	Side Case (R) Unit	Fig. 3	7-Screws (C)
		Fig. 4	Slide the Shoe Cover. 1-Screw (D)
		Fig. 5	1-Screw (E) Remove the Side Case (R) Unit. Disconnect the following connectors. FP301/FP601/FP602/FP2206
(3)	Camera C.B.A.	Fig. 6	Disconnect the following connectors. PS201/FP701/PS3004/FP302 Remove the Camera C.B.A..
(4)	Lens Unit	Fig. 6	1-Screw (E) Remove the Lens Unit.
(5)	EVF/Rear Case Unit	Fig. 7	1-Screw (D)
		Fig. 8	4-Screws (C/F) Disconnect the following connectors. FP603/FP1003/FP3401 Remove the EVF/Rear Case Unit.
(6)	Main C.B.A., Mecha Unit	Fig. 9	2-Screws (G)
		Fig. 10	Cassette Cover open.
		Fig. 9	Unlock Remove the Main C.B.A./Mecha. Unit.
		Fig. 11	Disconnect the following connectors. FP2201/FP2202/FP2203/FP2204/FP5001 Unlock Remove the Main C.B.A.. 3-Screws (H) Remove the Mecha. Unit.
(7)	LCD Case (Upper) Unit	Fig. 12	4-Screws (I) Remove the LCD Case (Upper) Unit.
(8)	EVF C.B.A.	Fig. 13	2-Screws (J) Remove the EVF Unit.
		Fig. 14	Remove the Eye Cap Unit. Unlock Remove the EVF Case (Upper). Remove the EVF (1) Unit.
		Fig. 15	Disconnect the FP801 and FP802.
		Fig. 16	Unlock Remove the EVF C.B.A.

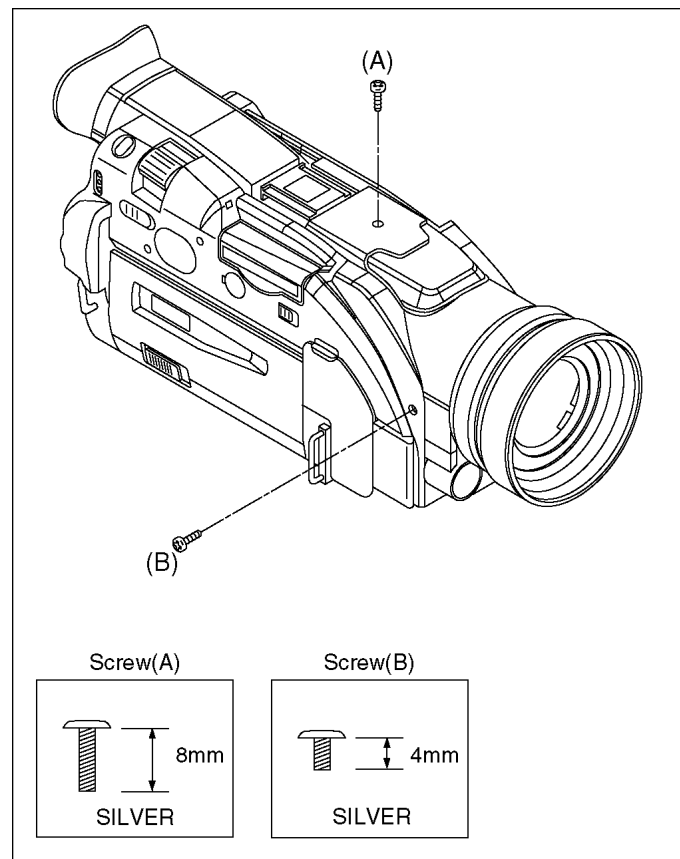


Fig. 1

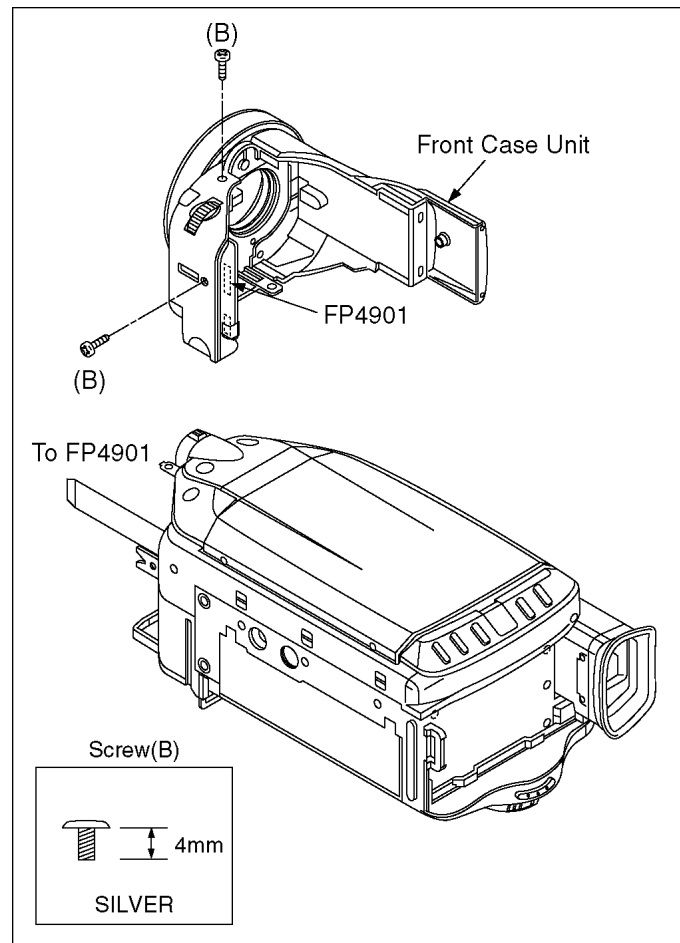


Fig. 2

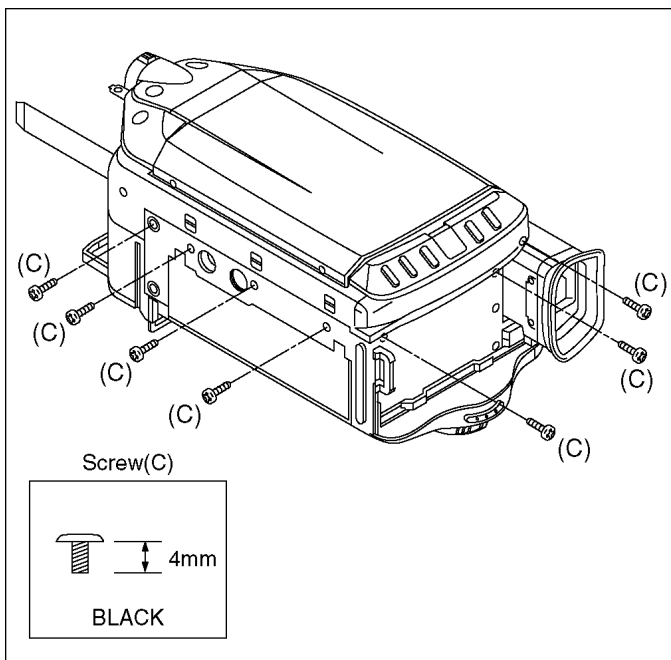


Fig. 3

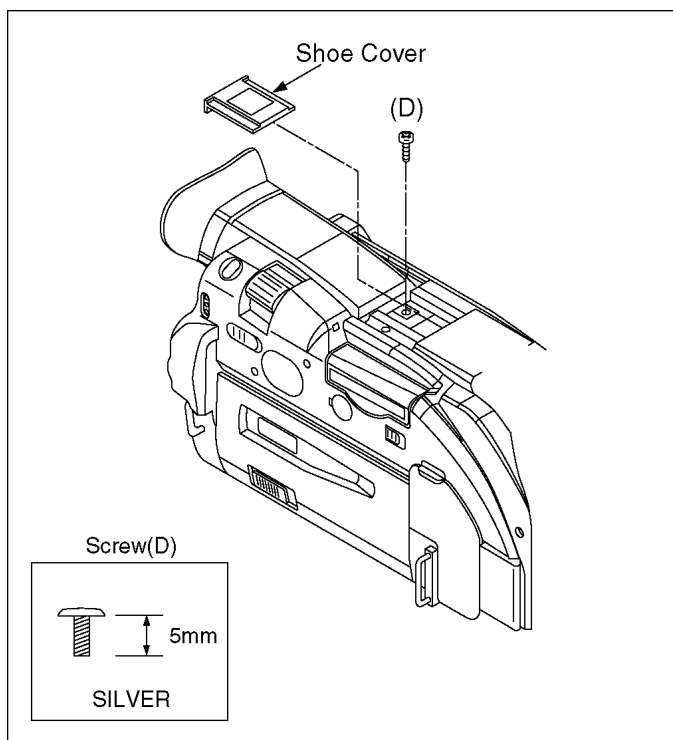


Fig. 4

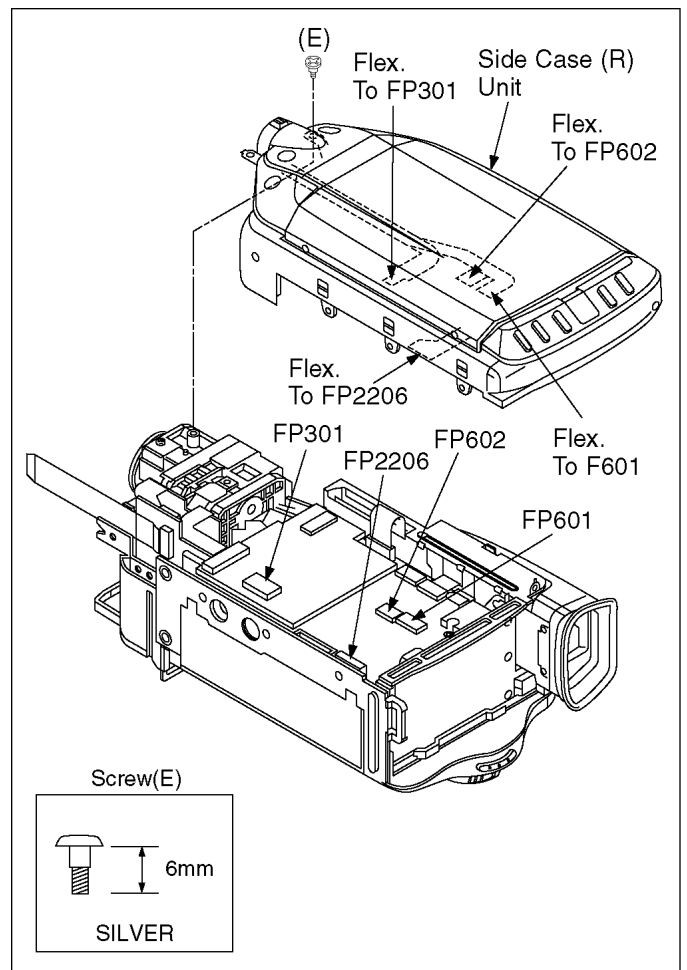


Fig. 5

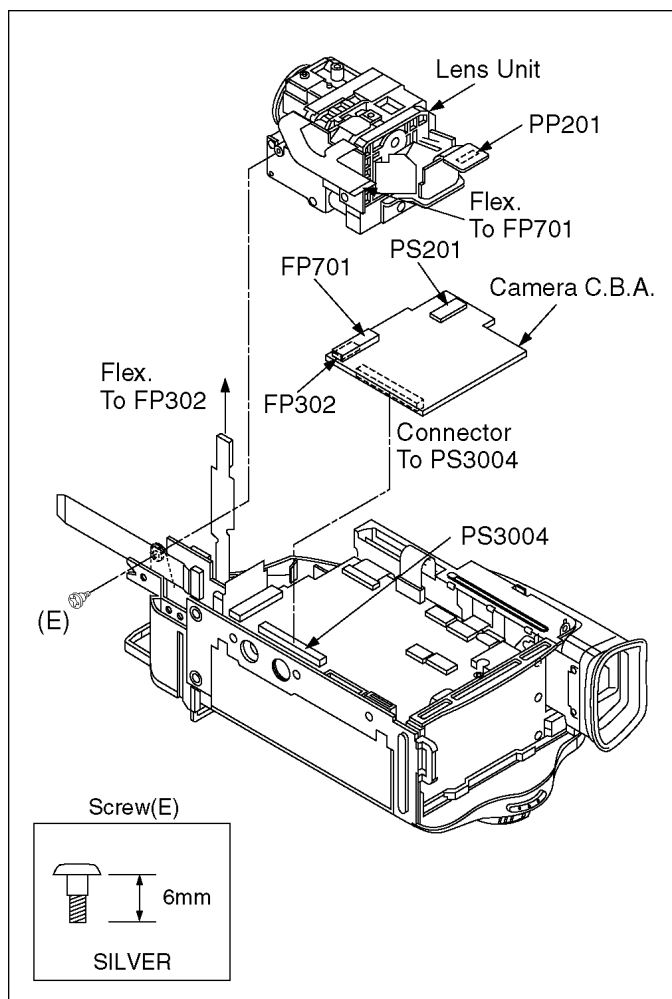


Fig. 6

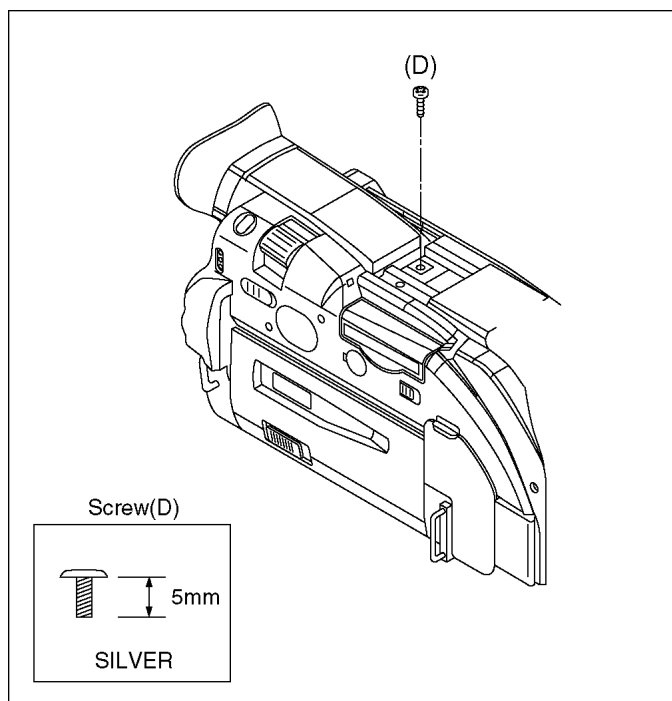


Fig. 7

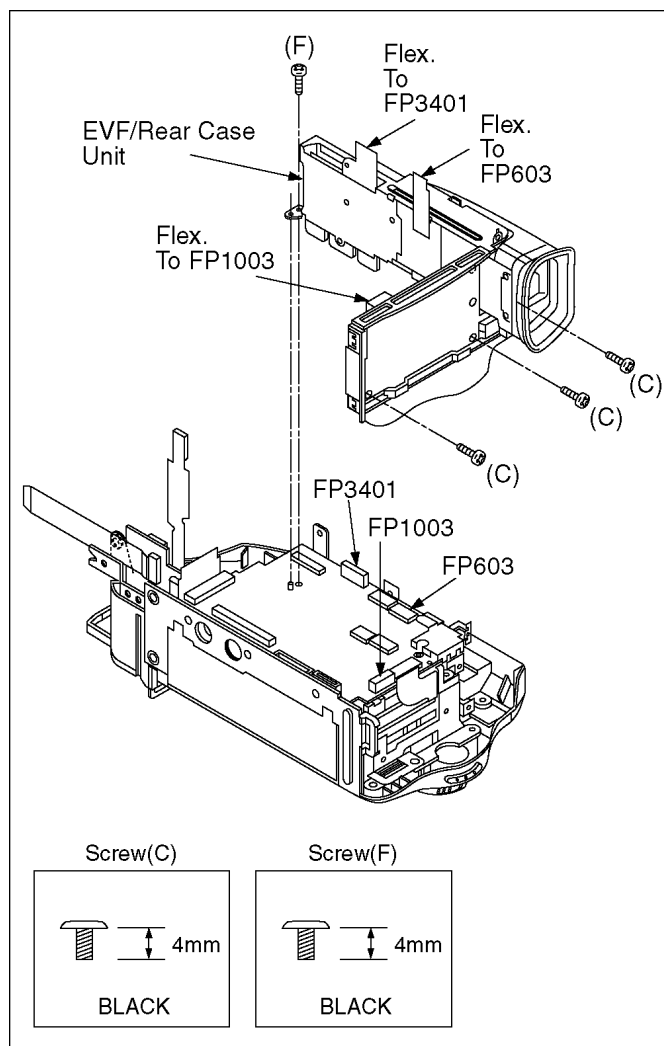


Fig. 8

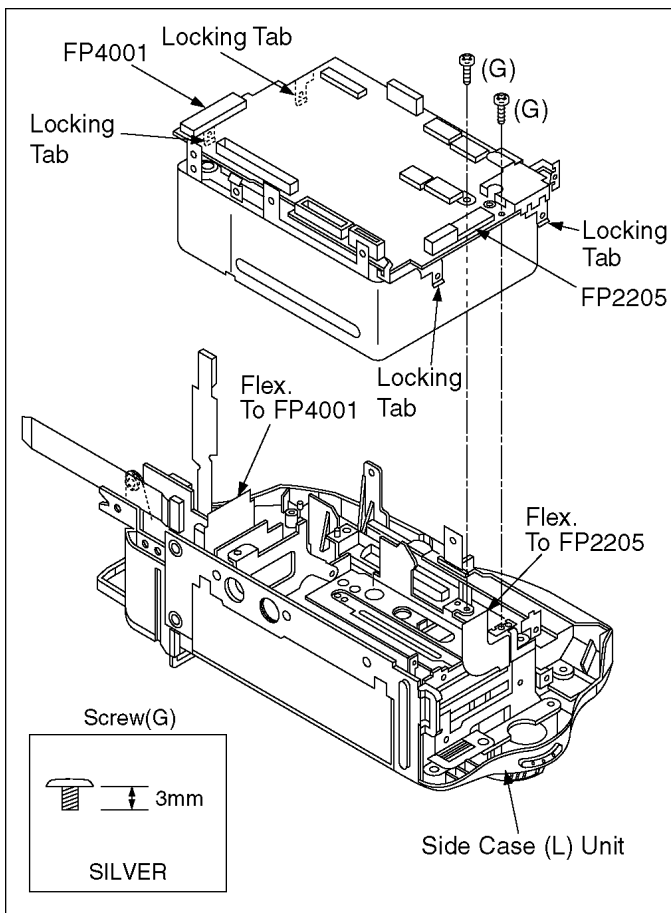


Fig. 9

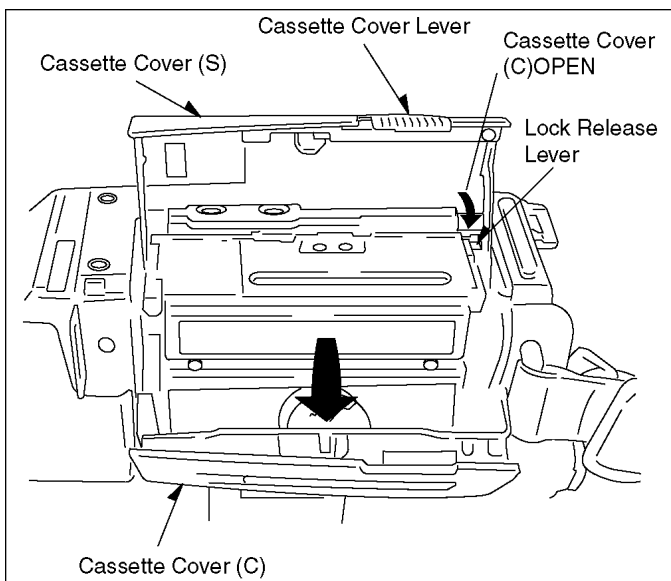


Fig. 10

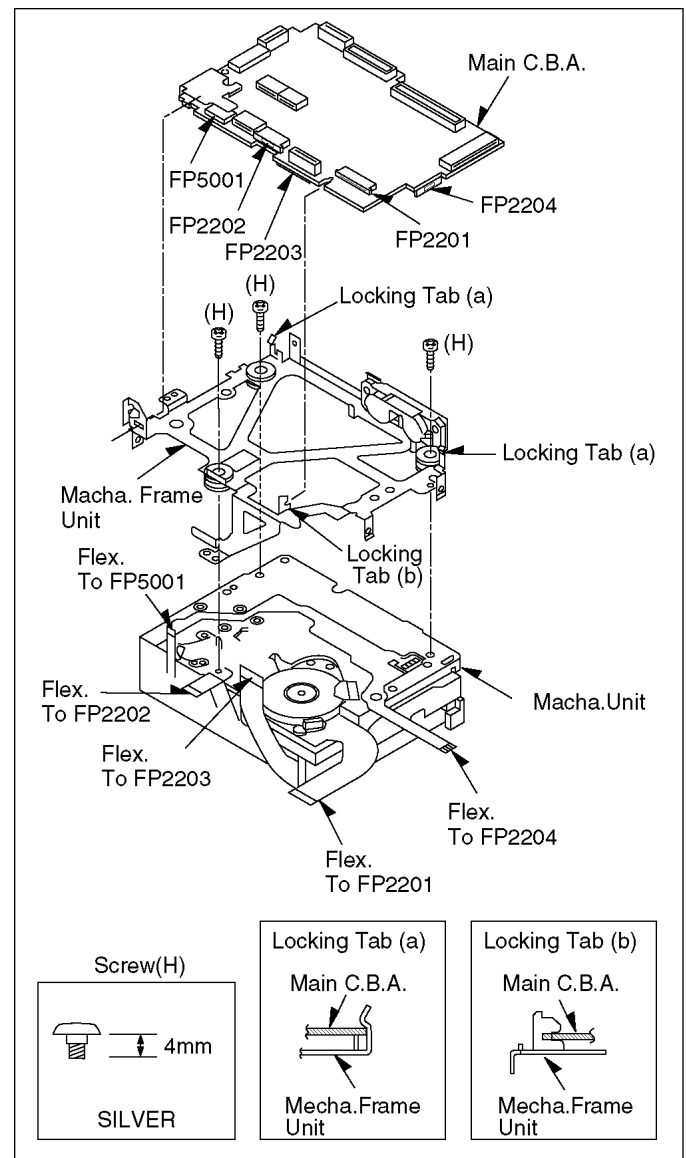


Fig. 11

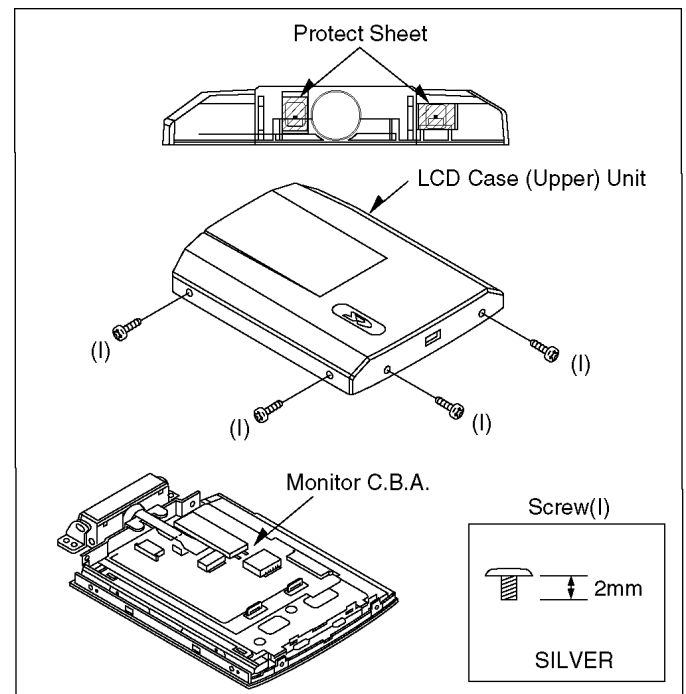


Fig. 12



5.3. DISASSEMBLY PROCEDURES OF CAMERA LENS UNIT

The following flowchart describes order or steps for removing the Camera lens unit and certain printed circuit boards in order to make access to the item needing service.

To reassemble the unit follow the steps in reverse order.

- | | |
|---|-----------------|
| 1. CCD Unit (3CCD Unit) | Ref.-No.301 |
| 2. Lens Flex. C.B.A. & Zoom Motor Unit | Ref.-No.304/309 |
| 3. Main Frame Unit & Photo Sensor & Iris Unit | Ref.-No.312/315 |
| 4. 2nd Moving Frame Unit & Guide Pole | Ref.-No.310/316 |
| 5. OIS Unit | Ref.-No.313 |
| 6. 4th Moving Frame Unit & Guide Pole | Ref.-No.311/317 |

Note 1:

Each Ref-numbers are equivalent to number of Fig.L2 and Parts List.

Fig. L1

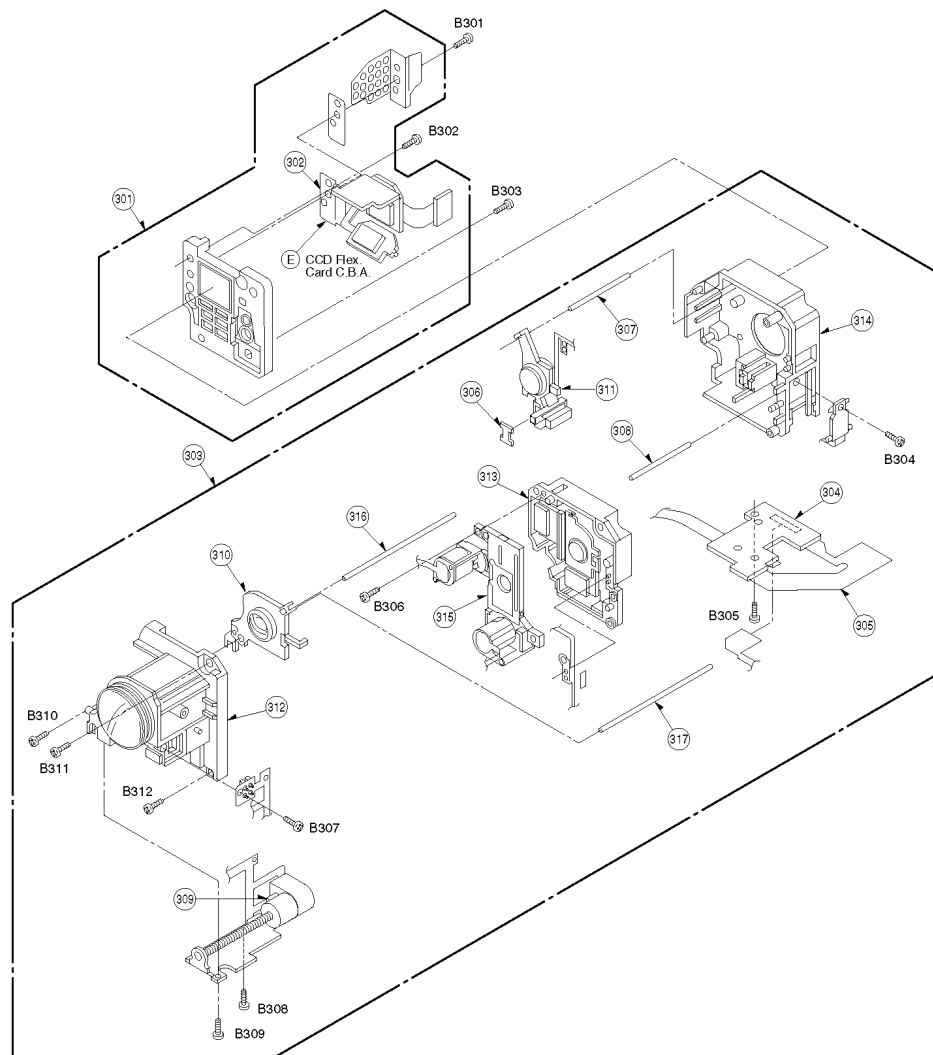


Fig. L2

6 ABBREVIATIONS

INITIAL/LOGO		ABBREVIATIONS	INITIAL/LOGO		ABBREVIATIONS
A	A GND	Analogue GND	ALC MAIN	Auto Level Control Drive	
	A HASW	Audio Head Amp Switching Pulse	ALE	Address Latch Enable	
	A HSW	Audio Switching Pulse	A-LOCK	Full Auto Switch	
	A MUTE	Audio Mute	A-MUT(H)	Audio Mute (H)	
	A ORP	Audio Overlap Pulse	ANLPTH	Analogue Loop Through High	
	A. TR	Auto Tracking	AORP	Audio Overlap Pulse	
	A0-8, 0-17	Memory Address	APCNT	Aperture Control	
	A3V2	AD Converter Reference Voltage	APS	Auto Power Save	
	AB0-4	Address Bus	ART VH	Artificial Vertical Sync	
	AB0-4, AB12-15	Address Bus Line 0-4, 12-15	AT CNT	Automatic Tracking Gain Adjust	
	ABSF	Focus Encoder Input	ATF	Automatic Track Finding	
	ACI	Analogue Channel Cording IC	ATFCLK	41.85MHz Clock	
	AD	AD Converter	ATFG	Auto Track Gain	
	AD	Auto Date, Analogue Digital Converter	ATL	Auto Lock Select	
	AD CLK	AD Clock	ATN	Absolute Track Number	
	AD REC	Audio Delayed REC	ATR OFF(H)	Auto Tracking Off (H)	
	AD0-6	Address	ATV	Advanced TV	
	AD0-6, ADR0-6	Address Data Line	AUDIO(N)	Audio (Normal)	
	ADCLK	Analogue Digital Converter Clock	AUX	Auxiliary	
	ADCNT	Analogue Digital Control	AVDD	Analogue VDD	
	ADCS	Analogue Digital Chip Select	AVSS	Analogue Ground	
	A-DET	Audio Detect	AWTB	Auto White Balance B-Y	
	ADREC	Audio Delaied Rec	AWTR	Auto White Balance R-Y	
	ADUB	Audio Dubbing			
	AE	Auto Expose	B	BACK	Back-up
	AECNT	Auto Expose Control		BACK UP	Microcomputer Back-up
	AEE(H)	Audio E-E (H)		BACK VDD	Back-up Power
	AEH	Audio Erase Head		BATT	Battery
	AEIRQ	Auto Expose Interrupt Request		BATT ALARM	Battery Alarm
	AF/MF	Auto Focus/Manual Focus		BATT REF	Reference Voltage for Battery
	AF DIS CS	AF DIS Chip Select		BCB	B Carrier Balance
	A-FADE(L)	Audio Fade (L)		BCBM(B-Y)	B-Y Carrier Balance
	AF-AMP	AF HALL Bias		BCBM(R-Y)	R-Y Carrier Balance
	AFCS	Auto Focus Chip Select		BD0-7	REC/Play In/Out Buss
	AFRP	Audio PLL Voltage Control		BDCK	Standard Bus Data Clock (9MHz)
	AF-VN	Zoom Encoder V-Ref (-)		BDEN	Standard Bus Data Enable
	AF-VP	Zoom Encoder VREF (+)		BEND	Data Block End Request
	AGC	Automatic Gain Control		BF	Burst Flag Pulse
	AGCCNT	Automatic Gain Control Control		BFA	Burst Flag Pulse for Encoder
	AGND	Analogue Ground/Audio Ground		BFO/BFI	Burst Flug Input/Output
	AGS	Anti Ground Shooting		BI, BO	Buffer Input, Output
	AH(P) / (R)	Audio Head (Play) / (Record)		BL	Back Light
	AHASW	Audio Head Amp Switch Pulse		BL ON	Back Light ON (L)
	AHSW	Audio Head Switch Pulse		BL4V	Back Light 4V
	AI, AO	Buffer Input, Output		BLC 0, 1	Back Light Y Control Out, In
	AIBCK	Bit Clock (to A/D Converter)		BLDI/O	Back Light Drive Input/Output
	AIDAT	Serial Data (to A/D Converter)		BLK	Blanking Pulse
	AILRCK	L/R Clock (to A/D Converter)		BLKA	Blanking for Encoder
	AIMCK	Master Clock (to A/D Converter)		BLKA	Blanking Pulse for Encoder
	ALC CNT	Auto Level Control Control		BLKI/O	Blanking Pulse In/Out

INITIAL/LOGO		ABBREVIATIONS	INITIAL/LOGO		ABBREVIATIONS
	BLKZ	Blanking Pulse for Zoom Encoder		CH1	Channel 1 (Odd Field)
	BM	Balance Modulator		CHR	Character
	BQUIET	Bus Out Control Signal		CHR BACK	Character Back-up
	BUF IN/OUT	Buffer In/Out		CHR MIX	Character Mix
	B-Y KB	B-Y Carrier Balance		CI, CO	Buffer In/Out
	B-YO	B-Y Signal Out		CI,CO	Buffer Input & Output
C	C A In/Out	Pre-Aperture In/Out		CIF	Control Signal Forward Input
	CAPSTP	Capstan Stop Flag		CIF, CIR	Positive Control Pulse, Negative Control Pulse
	C CNT	Colour Control		CIR	Control Signal Reverse Input
	C SYNC	Composite Sync Signal		CK	Clock
	C/N	Carrier/Noise		CL/CLK	Clock
	C0-7, C00-07	Chrominance Signal 0-7		CLASS	Classeffication Signal for Compress (DCT/VLC)
	CAGAIN	Aperture Gain Control		CLASS 0.1	Class Control Signal Durring DCT/VLC
	CAM	Camera		CLK135	13.5MHz System Clock
	CAM CLK	Camera Clock		CLK18	18MHz System Clock
	CAM RST	Camera Reset		CLK2	Clock 2 (824XFH: 12.875MHz)
	CAM SIOC	Camera Serial In/Out Contol		CLK246	24.576MHz Clock
	CAM T	Camera Test		CLK27	27MHz System Clock
	CAM TL	Capstan Trque Limit		CLK450	450KHz Clock
	CAP EC	Capstan Trque Control		CLKDCLK	Digital Clock
	CAP P(H)	Capstan Power On (H)		CLK-PH	Clock Phase Control
	CAP R/F/S	Capstan Reverse (H)/Stop (M)/Forward (L)		CLK-REF	Reference Clock
	CAP SW	Capstan Power Control Switch		CLP-RST-H	Clamp Reset High Signal
	CAPSTP H	Capstan Stop Flag (Stop High)		CLX	TFT X-axis Transmission Clock
	CAPVM	Capstan Motor Current		CLX, CLX1-4	Shift Clock for X Direction (LCD Panel)
	CAPVS	Capstan Motor Power Control Switch		CLY	Shift Clock for Y Direction (LCD Panel)
	CAS	Compresion, Audio Process, Shuffling/Deshuffling		CLY	TFT Y-axis Transmission Clock
	CAS	Memory Address Strobe (Active Low)		CLY FG	Cylinder FG Signal
	CASDOWN, DWN	Cassette Down (L)		CMEMO0-3	Chroma Memory Output Signal 0-3
	CB, CR	Chroma B, Chroma R		CMIX	Character Mix
	CBLK	Composite Blanking Pulse		CMO	Chrominance Memory Output
	CC	Channel Cording		COMPC	Position Detection Pulse
	CCA	Curent Drive Control		COM RDY	Serial Enable Signal
	CCA	Current Control Amp		CMODE	Camera Mode
	CCD	Charge Coupled Devise		CNCLK	Clock
	CCW	Counterclockwise		CNR	Chrominance Noise Reduction
	CD SP0-7	Digital Chroma		CNT, CONT	Control
	CDS	Correlate Double Sampling Signal		CO	Control Out
	CDS1, 2	Sampling Pulse for CCD Output Signal		CO0-7	Chrominance Output 0 to 7 (Digital)
	CE	Chip Enable		COM	Common
	CE	Control Pulse Erase		COM RDY	Serial Transmission Enable
	CEC	Capstan Error Code		COMB	Comb Filter
	C-ERA(H)	Control Erase (H)		COS EQ	Cosin Equalizer
	CFEM	Chrominance Memory Signal		CP	Clamp Pulse
	CFM	Chrominance Field Memory		CP ON(H)	Camera Power On(H)
	CFM1-4	Chroma Field Memory Signal		CP2, 20	Clamp Pulse
	CG CLK	Character Generator Clock		CP2A, CP2O	Encoder Clamp Pulse
	CG CLK DATA	Clock Generator Data		CPN	Component Signal
	CG DATA	Character Generator Data		CPOB	Clamp Pulse for Optical Blanking
	CGC	Chrominance Gain Control		CPS	Composite Signal
	CGCS	Character Generator Chip Select		CPV	Gate Scan Clock
	CGO	Character Generator Serial Data		CR OUT	Pre Apature Out
	CH	Charge		CR POW SW	Camera Remote Power On Switch
				CRA	Aperture Gain Control

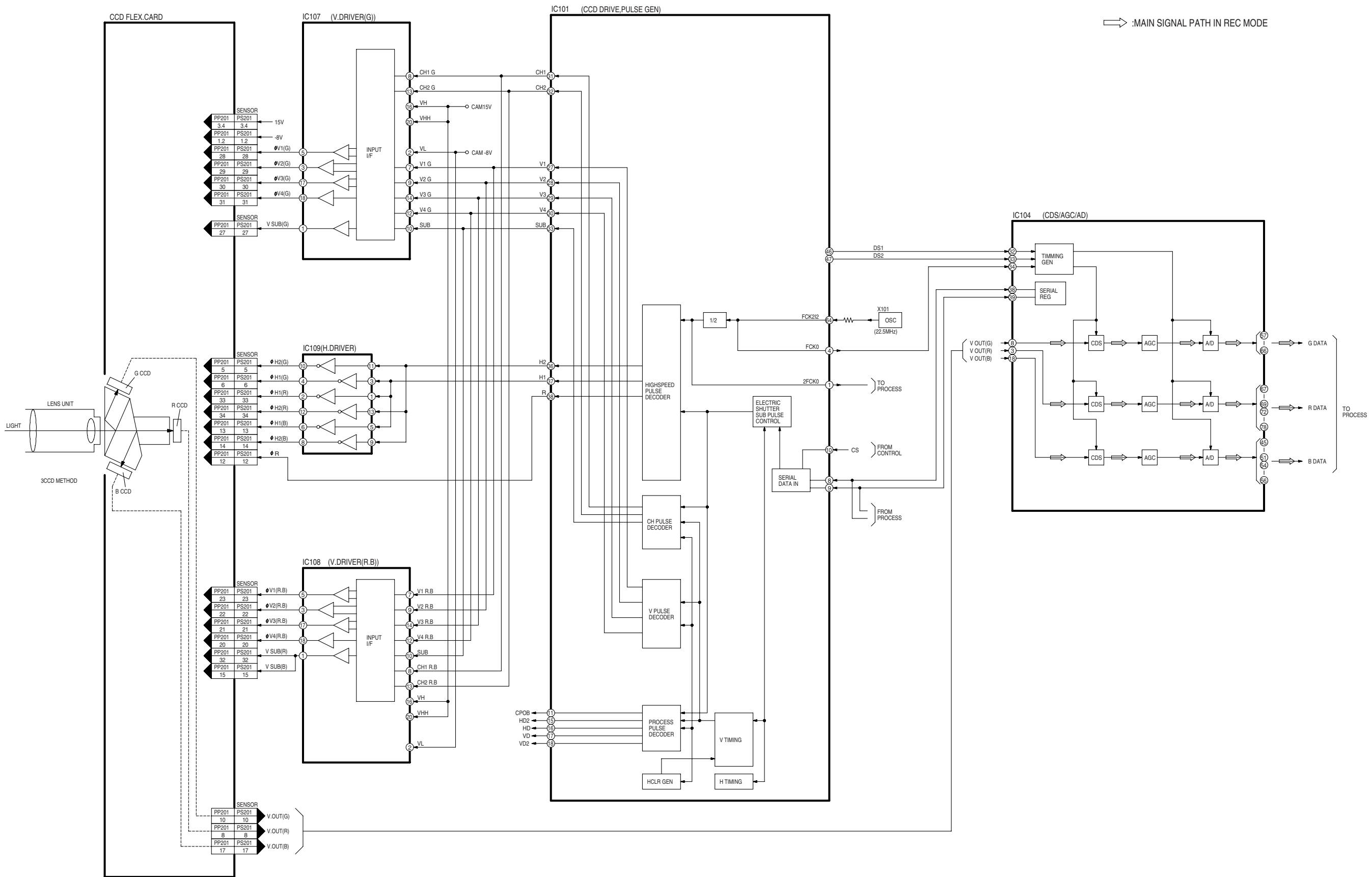
INITIAL/LOGO		ABBREVIATIONS	INITIAL/LOGO		ABBREVIATIONS
	CRA	Pre Apature Gain Control		DISCS	Dis Chip Select
	CRST	Camera Reset		DISP	Display
	CS	Chip Select		DL	Delay Line
	CS 0-7	Chrominance Signal Out 0-7		DOBCK	Audio A/D Convertor Bit Clock
	CSEL	Clock Phase Select		DOCTL	Data Output Control Signal
	CSI 0-7	Chrominance Signal In 0-7		DODAT	Serial Data (to D/A Converter)
	CTSW	Crosstalk Switch		DOLRCK	Audio A/D Converter LR Clock
	CURR	Current		DOLRCK	L/R Clock (to D/A Converter)
	CW	Clockwise		DOMCK	Audio A/D Converter Master Clock
	CYL EC	Cylinder Motor Trque Control		DOMCK	Master Clock (to D/A Converter)
	CYL PG	Cylinder Motor PG		DQ 1-16	Memory Data
	CYL VM	Cylinder Motor Current or Power		DRAM CAS	D-RAM Colum Address Strobe
				DRAM OE	D-RAM Out Enable
				DRAM RAS	D-RAM Read Address Strobe
				DREC	AV Delayed REC Start Pulse
				DRK	Dark (LPF Switch for Auto Focus)
				DS1, 2	Double Sampling Pulse
				DSF 0-7	Data In/Out for Shaffling Memory
				DSF 0-7	Input/Output Data to Shuffling Memory (18MHz)
				DSP	Digital Signal Processor
				DSP R/B	DSP IC Rady/Busy
				DSP-48K-H	DSP IC Clock Select
				DSTB	Data Strobe Signal
				DSV	Digital Sum Variation
				DV	Digital Video
				DVB	Digital Video Broadcast
				DVC	Digital Video Cassette
				DVDD	Digital VDD
				DVIO	Digital Video Input Output
				DVSS	Digital Ground
				DX	Shift Data for X Direction (for LCD)
				DY	Shift Data for Y Direction (for LCD)
				DY	TFT Y-axis Shift Data
				DZ	Digital Zoom
D	D CLK	Digital Clock			
	D MODE	Digital Mode Switch Signal			
	D01-03	Zoom 01-03			
	DA UV SEL	D/A Convertor U/V Select			
	DAC	Digital Analogue Converter			
	DAG	Digital Analogue Ground			
	DB0-7	Data 0-7			
	DB0-7	Microprocessor Data			
	DCC	DC Clamp Control			
	DCCNT	DC Control			
	DCI	Digital Channel Cording IC			
	DCLR	Digital Clear			
	DCP	Digital Clamp Pulse			
	DCS-CLK, DA	CAS & DV I/F Serial Clock			
	DC-STP1	DCS Serial Start			
	DC-STP2	DCS Serial Stop			
	DCT	Discrete Cosine Transform (Compression)			
	DCX7	Serial Data			
	DEDP 0-3	Playback Data			
	DEDR 0-3	Rec Data			
	DEMO	Demodulation			
	DEMP	A/D Convertor Empahsis Control			
	DEMP	De-Emphasis			
	DFD 0-7	Encode Data In/Out Between Shaffling Memory			
	DFD0-7	Encode Input/Output Signal for Shuffling Memory			
	DIBDCK	Bit Clock			
	DICLK	Digital Clock			
	DIDAT	Serial Data			
	DIDAT	Serial Data Durring Digital Audio In			
	DIF	Digital Interface			
	DILRCK	L/R Clock			
	DILRCK	Serial Clock Durring Digital Audio In			
	DIMCK	Master Clock			
	DIMCK	Mater Clock Durring Digital Audio In			
	DIO 1-8	Data In/Out			
	DIOS	Data In/Out Select Control Signal			
	DIOS	Select Signal for Digital In/Out			
	DIS	Digital Image Stabilizer			
	DIS R/B	Digital Image Stabilizer Read (H)/Busy (L)			
	DIS R/B	DIS IC Rady/Busy			
	DIS/KAND	Digital Image Stabilizer/Sensitivity			
			E	E Snap	Electric Snap Shot
				E ZM	Electric Zoom
				E2 CS or E2P CS	EEPROM Chip Select
				E2 R/B	EEPROM Rady/Busy
				E2P	EEPROM
				EARP	Earphone
				EC	Torque Control
				ECC	Error Correction Cording
				ECM	Electric Condencer Mic
				ECR	Reference Voltage for Capstan Torque
				EDA	Error Correction, DCI, ATF Servo
				EE CS	EEPROM Chip Select
				EE R/B	EEPROM Read (H)/Busy (L)
				EEPROM	Electric Erasable Programable Read Only Memory
				EIS	Electric Image Stabilizer (DIS)
				EMP	A/D Convertor Emphasis Control
				ENAB	Enable
				ENV	Enverope
				EOB	End of Block

INITIAL/LOGO		ABBREVIATIONS		INITIAL/LOGO		ABBREVIATIONS	
	EQ	Equalizer			HD	Horizontal Drive Pulse	
	EVF	Electric View Finder			HDTV	High Definition TV	
	EXT DC	External DC (AC Adaptor)			HEX	Hexadecimal	
	EXT DC(H)	AC Adaptor DC (H)			HG	Hall Gain	
	EXT NOREG	AC Adaptor 6V			HID	Head Switching Pulse	
	EXT S DATA	Serial Data for Edit			HLT	High Bright Signal	
	EXT SCK	Serial Clock for Edit			HALL IN(+), (-)	Input Signal from Hall IC	
	EZOOM	Electric Zoom			HP	Headphone	
F	F ENC	Lens F-Value			HPF	High Pass Filter	
	FACT MODE	Factry Mode (not used in the service)			HSE	Modulated Data Output	
	FB	Feed Back			HSP	Timing Pulse for Shaffling Memory	
	FC	Saw Tooth Signal In			HSS	Horizontal Sync Signal	
	FCK	Clock			HSW	Head Switching Pulse	
	FCO	Saw Tooth Signal Generator			HS-WT	High Speed Zoom	
	FENC	Focus Encoder			HSZ	High Speed Zoom	
	FEND	Frame End Pulse		I	I/F	Interface	
	FH2B	FH/2 (15.625KHz / 2=7.8125KHz)			I-2 C	Inter Integrated Circuit	
	FIX OSD	Auto Tracking Off (H)			ID(H)	Wide Television (H)	
	FLICK	Flicker Output			IMP	Inter Microprocessor Protocol	
	FM	Field Memory			INF	CCD Input Signal 1	
	FM0-7	Field Memory 0-7			INF	Input Frame Signal	
	FMCO0-3	Field Memory Chrominance Out 0-4			INS	CCD Input Signal 2	
	FMDIR	Focus Motor Direction			INTER	Interval Recording	
	FMOEM	Field Memory Enable			INV	Inverter	
	FMOEO	Field Memory Enable			IOU	R-Y Analogue Signal Output	
	FMT1-4	Focus Motor Terminal 1-4			IOV	B-Y Analogue Signal Output	
	FMY00-07	Field Memory Luminance Out 0-7			IOY	Y Analogue Signal Output	
	FMYI0-07	Field Memory Luminance In 0-7			IR	Infrared Rays	
	FNO	F Value			IRDET	Imfrared Ray Detection	
	FPS	Frame Refference Signal			IREF	Current Adjustment Terminal	
	FR	Capstan Reverse High			IRIS/SH	Iris / Shutter Control	
	FRP	Frame Refference Pulse			IRQ	Interrupt Request	
	FRPSO	Frame Start Pulse			ITI	Insert & Track Information	
G	G1, G2, G3	Gap 1, 2 and 3		J	JPEG	Joint Photographic Image Cording Experts Group	
	GCA	Gain Control AMP		K	KANDO	Digital Gain Up	
	GCNT	Gain Control			KB	Carrier Balance	
	G-CNT	AGC Adjustment			KEY IN	Key Scan	
	GCTRL	Gain Control			KND	Digital Gain Up	
	GENE	Generator			KNEE	Luminance Compensate	
	GF	FG AMP Terminal		L	LCD	Liquid Crystal Display	
	GSW	Ground for Switching Power			LCD P(L)	LCD Power On (L)	
H	H/M/N	Hi-Fi / Mix / Normal			LD	Load Pulse	
	H/N	Hi-Fi / Normal			LDD	Liquid Direct Drive	
	H1, 2	H. CCD Drive Pulse			LEDCNT	LED Control	
	HAP	Horizontal Aperture			LI-BATT	Lithium Battery	
	HASW	Head AMP Switching Pulse			LOAD	Loading	
	HB	Hall Bias			LOAD F, R	Loading Direction (F: Forward / R: Reverse)	
	HBR SET	High Brightness Set			LPF	Low Pass Filter	
	HBRST	High Brightness Set			LRMONO	Monoral Audio (L + R)	
	HCLR	High Clear			LSB	Least Significant Bit	
	HCP	Shift Clock for Horizontal Drive					

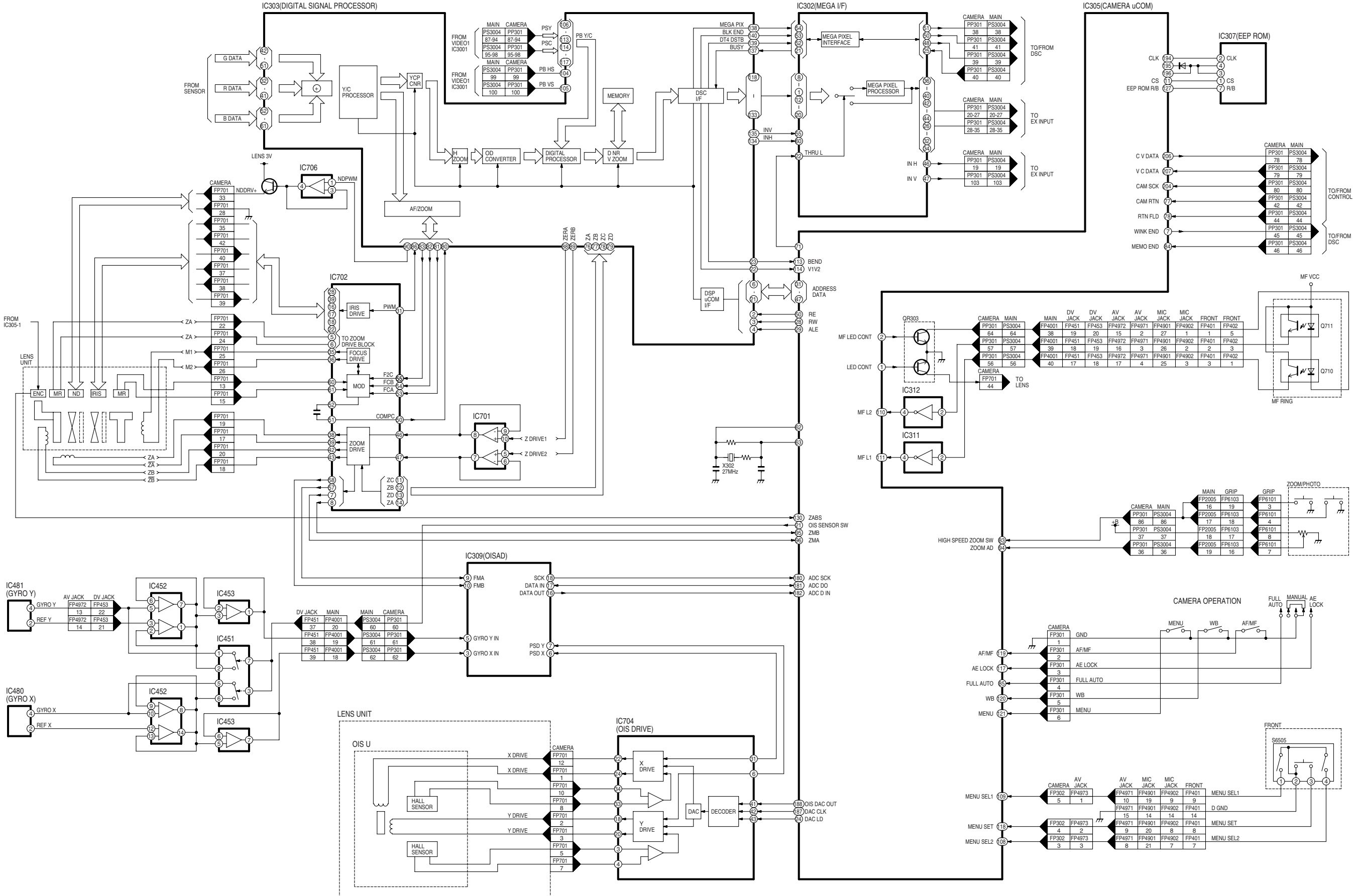
INITIAL/LOGO			ABBREVIATIONS		
	LVL	LPF Switch for Auto Focus	P	P SW	Power Switch
M	M1-3	Motor Coil Terminal 1 to 3		PB1-3	PNP Base 1-3
	MA0-5	Microprocessor Address Data 0-5		PBCTL	Play Back Control
	Mbps	Megahertz Bit Per Second		PBCTL	Pre-Blanking Control
	MD	Modulation		PBH	Head Amp Switch
	MD0-7	Microprocessor Data 0-7		PBLK	Pre-Blanking (Pulse)
	MDT0-7	Microprocessor Data 0-7		PC1-3	Corrector of PNP Transistor
	ME (TAPE)	Metal Evaporated (Tape)		PCBM	Carrier Balance
	MENB	Focus Motor Enable		PCH	Phase Compensator (Hall AMP)
	MFF	Manual Focus Far		PCI	Phase Compensator (Current)
	MFN	Manual Focus Near		PCO	Phase Compensator Out
	MHSYNC	Monitor Horizontal Sync Signal		PCS	Switching Power Control
	MIC	Memory In Cassette		PCV	Phase Compensator (Voltage)
	MIG	Meta In Gap		PE	Emitter of PNP Transistor
	MIX N.R.D.	Non Rec Data Mix		PED	Pedestal
	MOD	Modulation		PEDECNT	Pedestal Control
	MOUT	Mic Out		PENO	Alarm (L)
	MP (TAPE)	Metal Particle (Tape)		PFP	Pilot Frame Position
	MPEG	Moving Picture Image Cording Experts Group		PGA, B	Power Ground A, B
	MPEG2	Moving Picture Image Cording Experts Group Phase 2		PGC	Pulse Generator Comparator
	MRST	Focus Motor Reset		PGI	Pulse Generator Input
	MSB	Most Signal Bit		PGMM	Pulse Generator Monostable Multivibrator
	MVSYNC	Monitor Vertical Sync Signal		PGO	Output of Pulse Generator AMP
N	N/F	Near/Far Focus		PMODE	Select Signal for Normal / Wide Screen
	N/P	NTSC/PAL		PON	Power On
	NB1-3	Base for NPN Transistor		POR	Power On Reset
	NC	No Connection		POSCOM	Common Position
	NC1-3	Corrector of NPN Transistor		PREAMP	Pre-AMP
	NCLR	Power On Reset		PREBLK	Pre-Blanking
	NCP1	Clamp Pulse		PT	Protect for V Voltage
	NCP2+VDH	Clamp Pulse + Horizontal Drive Pulse		PWM	Pulse Width Modulation
	NCP2+VDM	Clamp Pulse + Gate Pulse		PWMB	Pulse Width Modulation Pulse
	NDE	Non Liner De-Emphasis	Q	Q2H	Source Output Select
	NE	Emitor of NPN Transistor	R	R CTL P	Recorded Control Pulse (+)
	NLE	Non Liner Emphasis		R CTL R	Recorded Control Pulse (-)
	NR	Noise Reduction		R/B	Read/Busy
	NRD	Non Rec Data		R/L	Direction Control for Data Transmition
	NRD BLK	Non Rec Data Blanking		RA	Recording AMP
	NRD CLK	No Rec Data Clock		RA1	Rec AMP 1
	NRE	Read Enable Input (Low Active)		RAC AC	Rec Audio Current
	NWE	Write Enable (Low Active)		RAD	Read Address Data
O	OB	Optical Black		RAE	Read Address Enable
	OBCNT	Optical Black Control		RB	Read Busy
	OBREF	Reference Voltage for Optical Black Control		R-B	R Bias
	OE	Output Enable		RCB	R Carrier Balance
	OFH	Horizontal Counted Down Clock Signal (Reference)		RE	Read Enable
	OFS	Offset		RE(F), (S)	Rotary Erase Head Transformer
	OP	Operation AMP Output		REB	R Bias
	OSD	ON Screen Display		REC CC	Rec Current Control
	OVL	Overlap Pulse		REC CCNT	Rec Current Control
	OZ	Optical Zoom		RECCTRL	Recording Control Pulse
				RECI	Rec Amp Switch

INITIAL/LOGO		ABBREVIATIONS	INITIAL/LOGO		ABBREVIATIONS
	VMODE	NTSC/PAL Select Switch			
	VMVH	VH Filter Switching			
	VORP	Video Overlap			
	VRB	Voltage Reference Bottom			
	VRBS	Voltage Reference Bottom Output			
	VREF1R3V	Reference Voltage 1.3V			
	VREF3R3V	Reference Voltage 3.3V			
	VREFH	Reference Voltage High Side			
	VREFL	Reference Voltage Low Side			
	VRI	Reference Voltage Input			
	VRO	Reference Voltage Output			
	VRT	Voltage Reference Top			
	VRTS	Voltage Reference Top Output			
	VS	Switching Comparator			
	VSS	Vertical Sync Signal			
	VSSX	X Driver Power for Colour LCD			
	VSSXY	X-Y Driver Power for Colour LCD			
W	W/N	Mode Select for Window Mode			
	W/N	Wide / Normal			
	WAD	Write Address Enable			
	WAE	Write Address Enable			
	WAERAE	Write Address Enable			
	WARI	Interrupt			
	WB	White Balance			
	WE	Write Enable			
	WEM	Memory Write Enable			
	WHD	Wide Horizontal Drive Pulse			
	WIDE A	Wide Zoom			
	WSB	B AGC Control			
	WSR	R AGC Control			
	WTV	Wide TV			
X	XP	FG Logic Reset			
Y	Y FM0-7	Y Field Memory 0-7			
	YCE	Cylinder Error Code			
	YGC	Y Gain Control			
	YMO 0-7	Y Field Memory 0-7			
	YNCST	Noise Canceller			
	YNR	Luminance Noise Reduction			
	YSDP 0-7	Digital Y Out 0-7			
Z	Z.ENC	Zoom Encoder			
	Z.MIC	Zoom Mic			
	ZENC	Zoom Encoder Output			
	ZMDIR	Zoom Drive			
	ZMEN	Zoom Enable			
	ZMT	Zoom Motor Tele Side			
	ZMT (+)/(-)	Zoom Motor (+)/(-)			
	ZMTER	Zoom Motor Tele Side			
	ZMW	Zoom Motor Wide Side			
	ZSW	Zoom Switch			

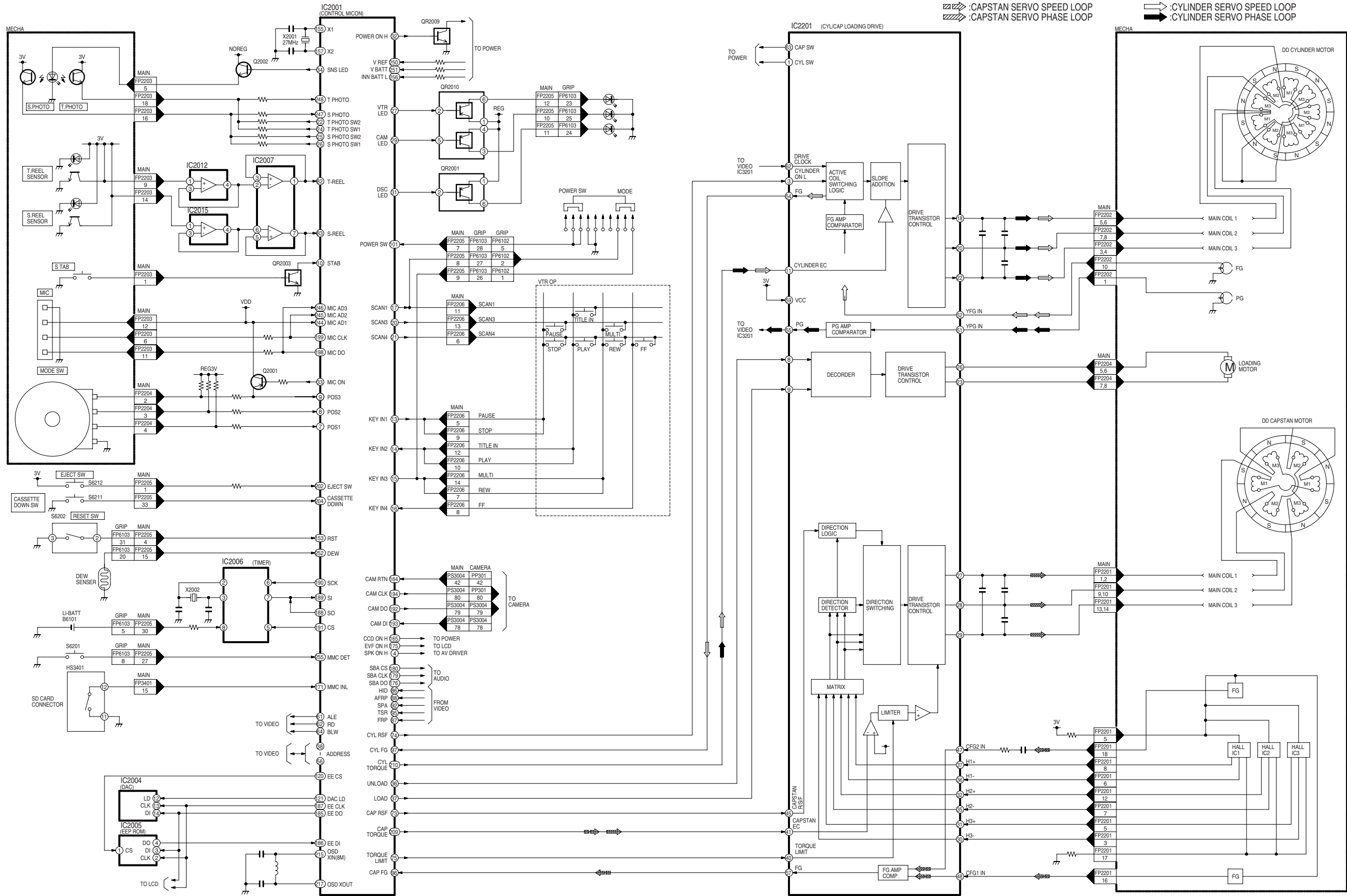
7.2. SENSOR BLOCK DIAGRAM



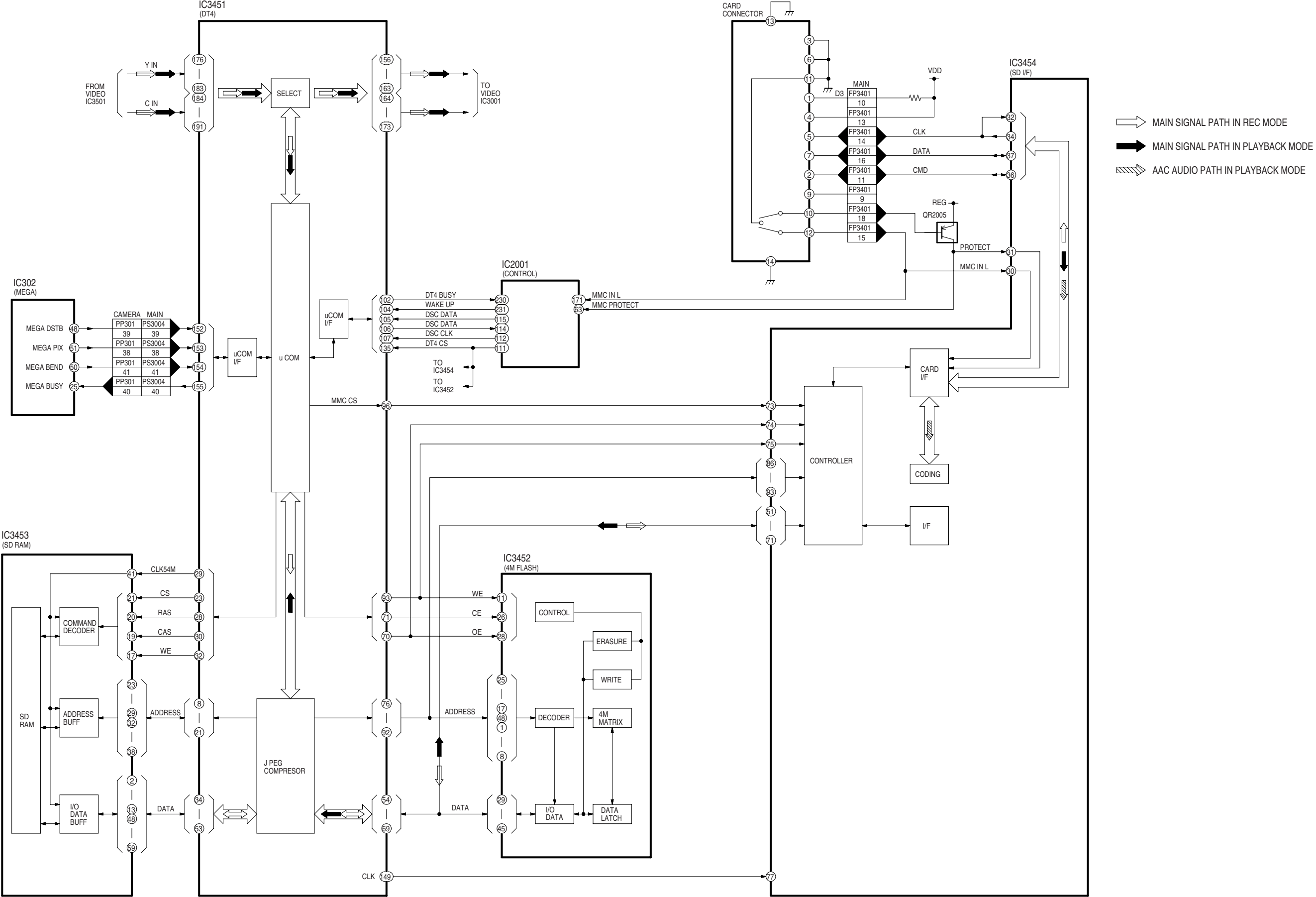
7.3. PROCESS BLOCK DIAGRAM



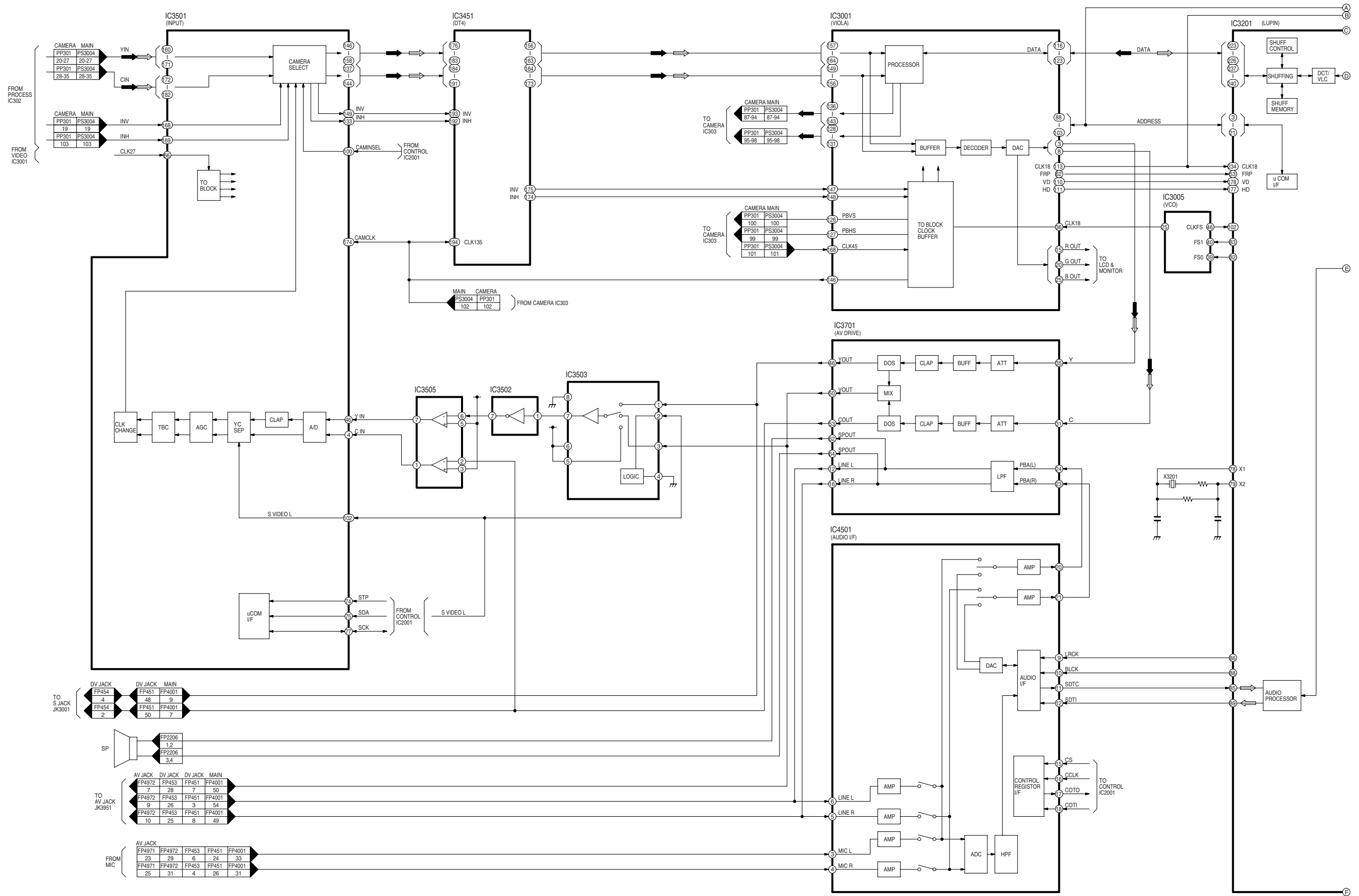
7.4. CONTROL BLOCK DIAGRAM

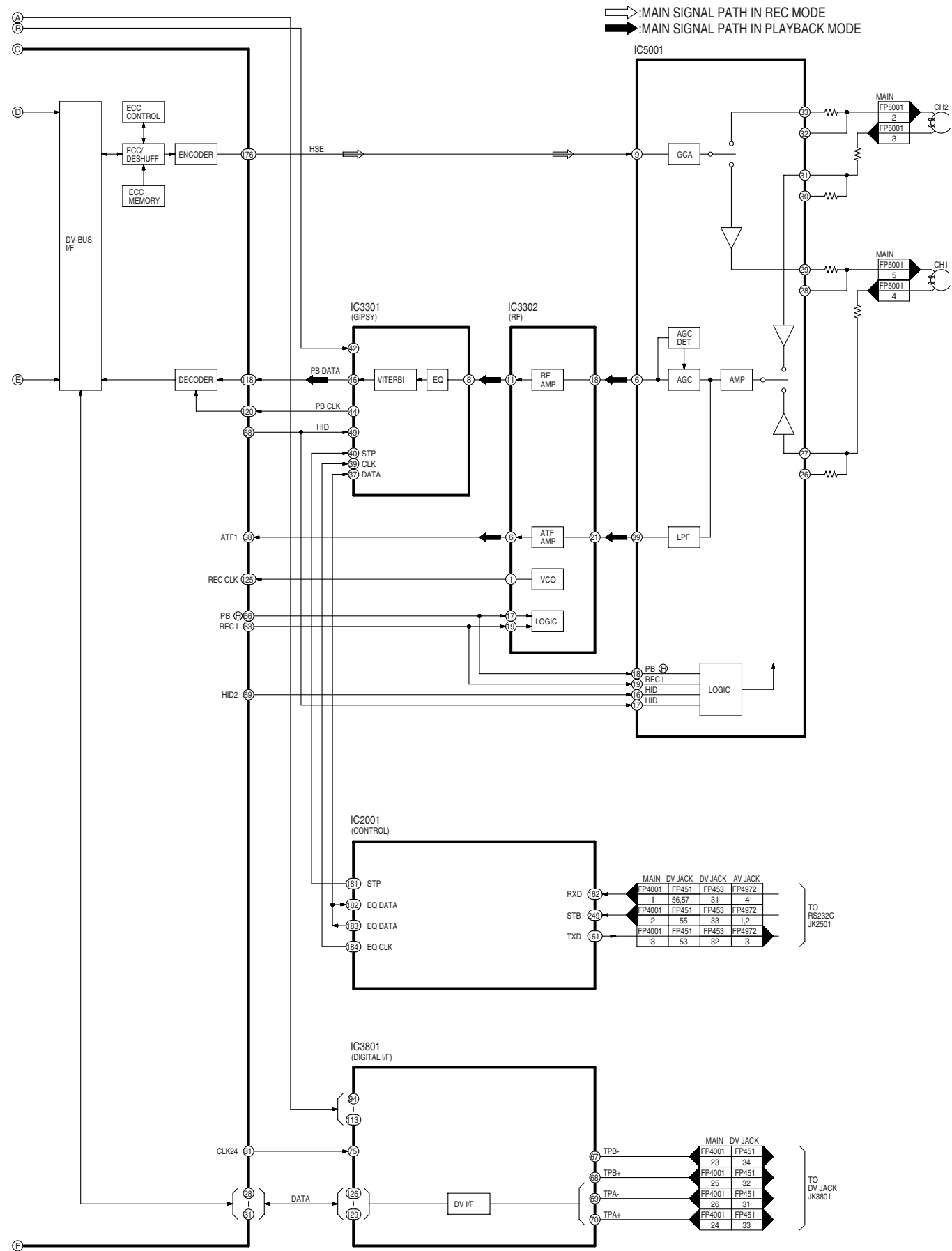


7.5. DSC BLOCK DIAGRAM

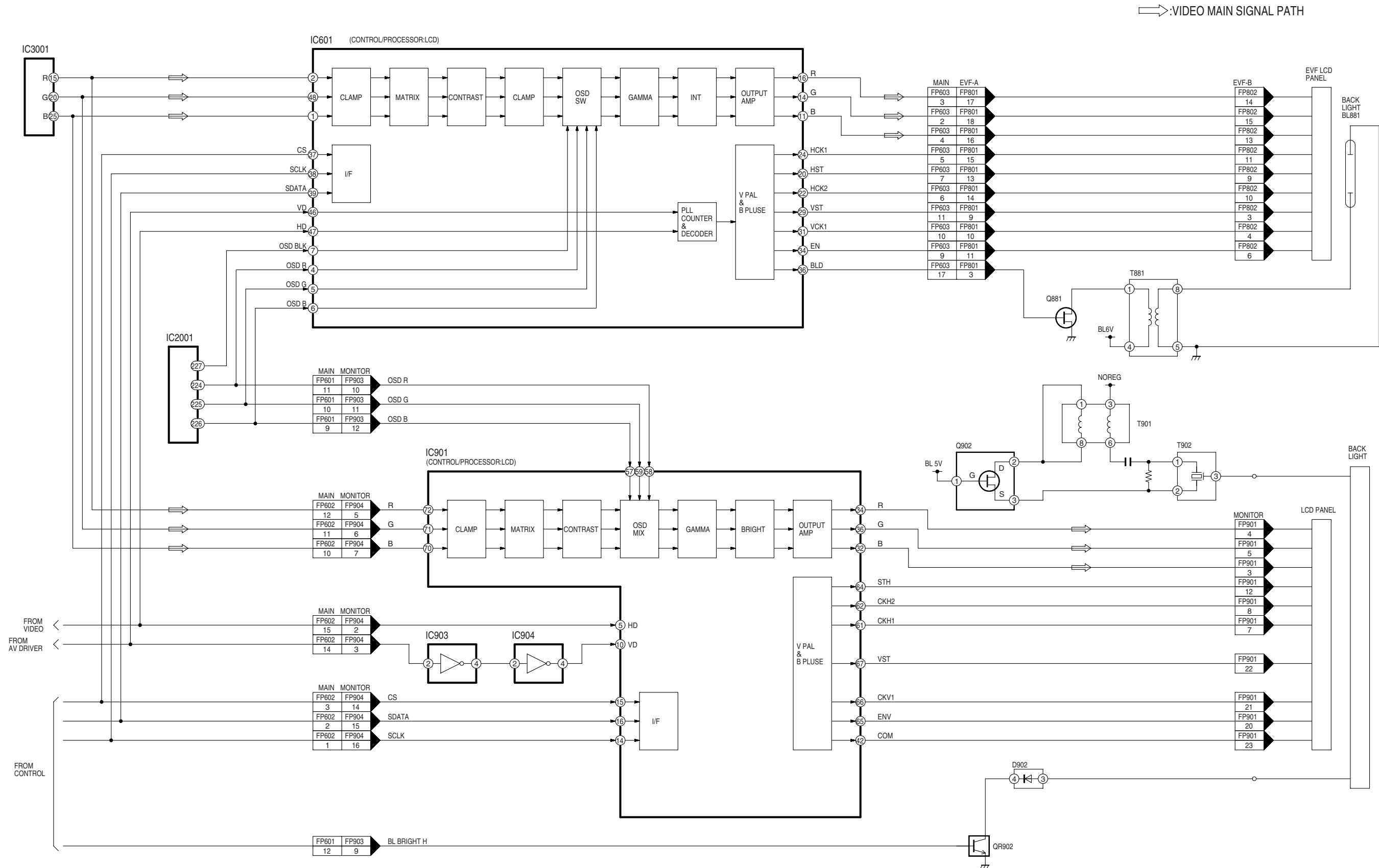


7.6. VIDEO BLOCK DIAGRAM



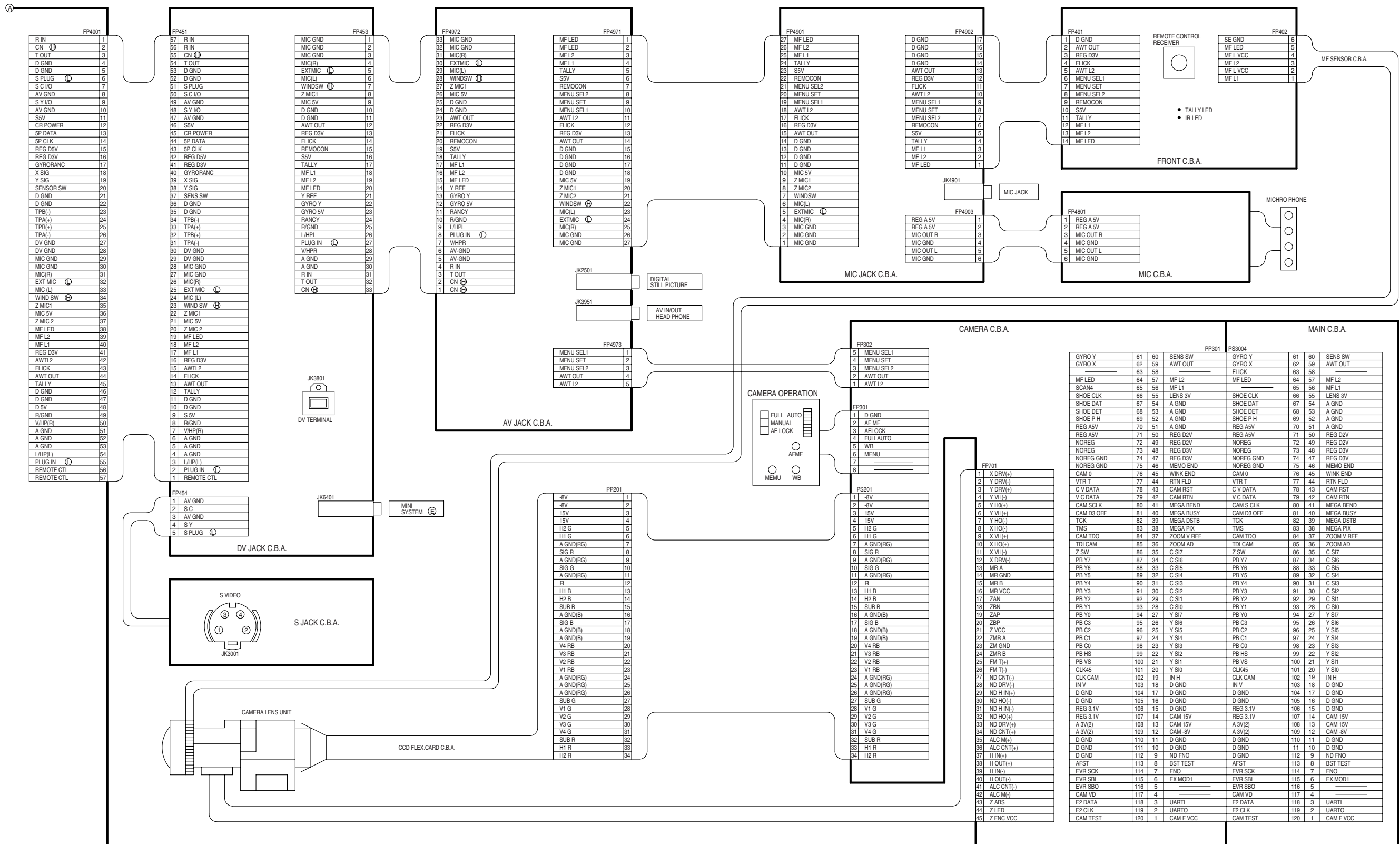


7.7. MONITOR BLOCK DIAGRAM

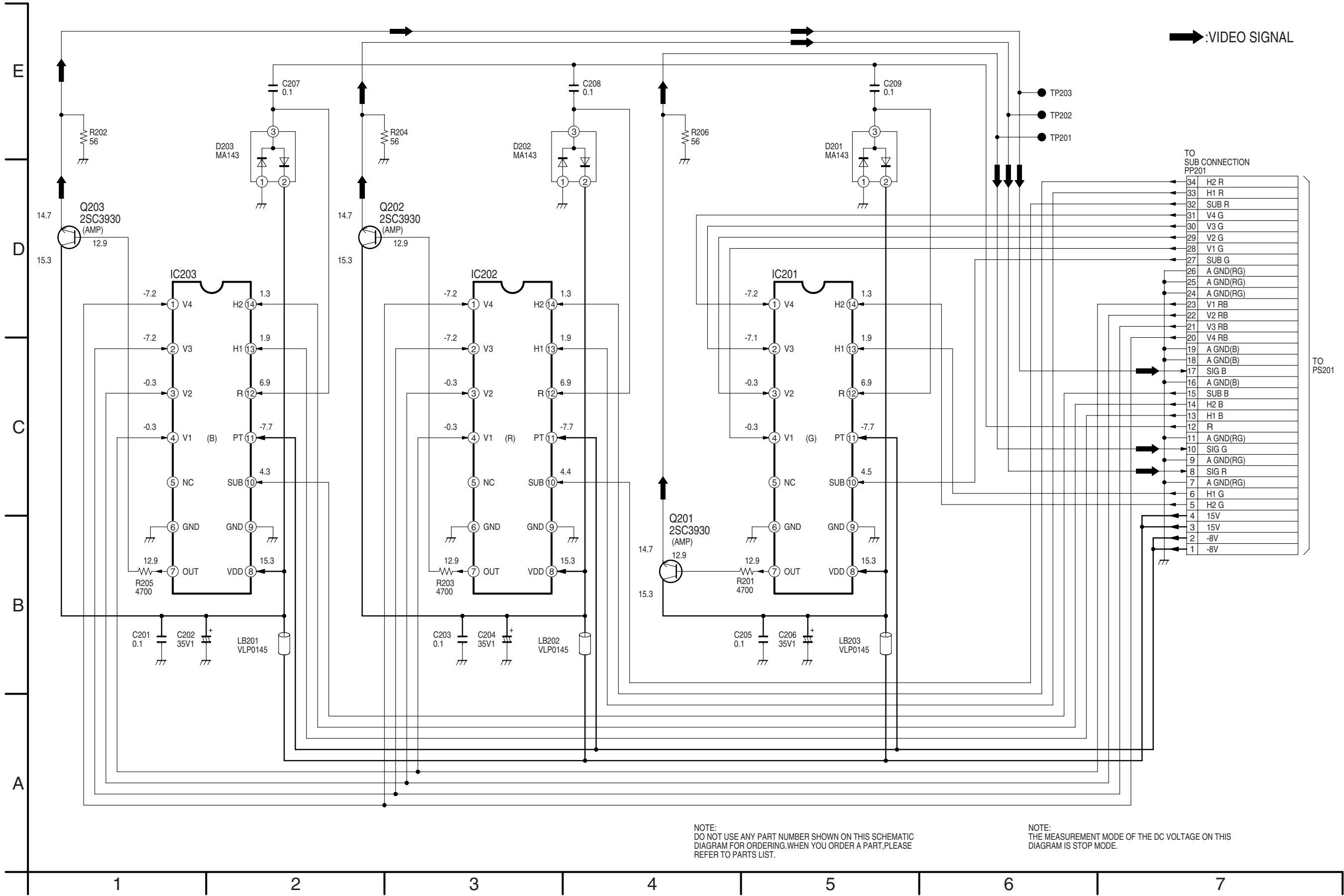


8.1. INTERCONNECTION SCHEMATIC DIAGRAM

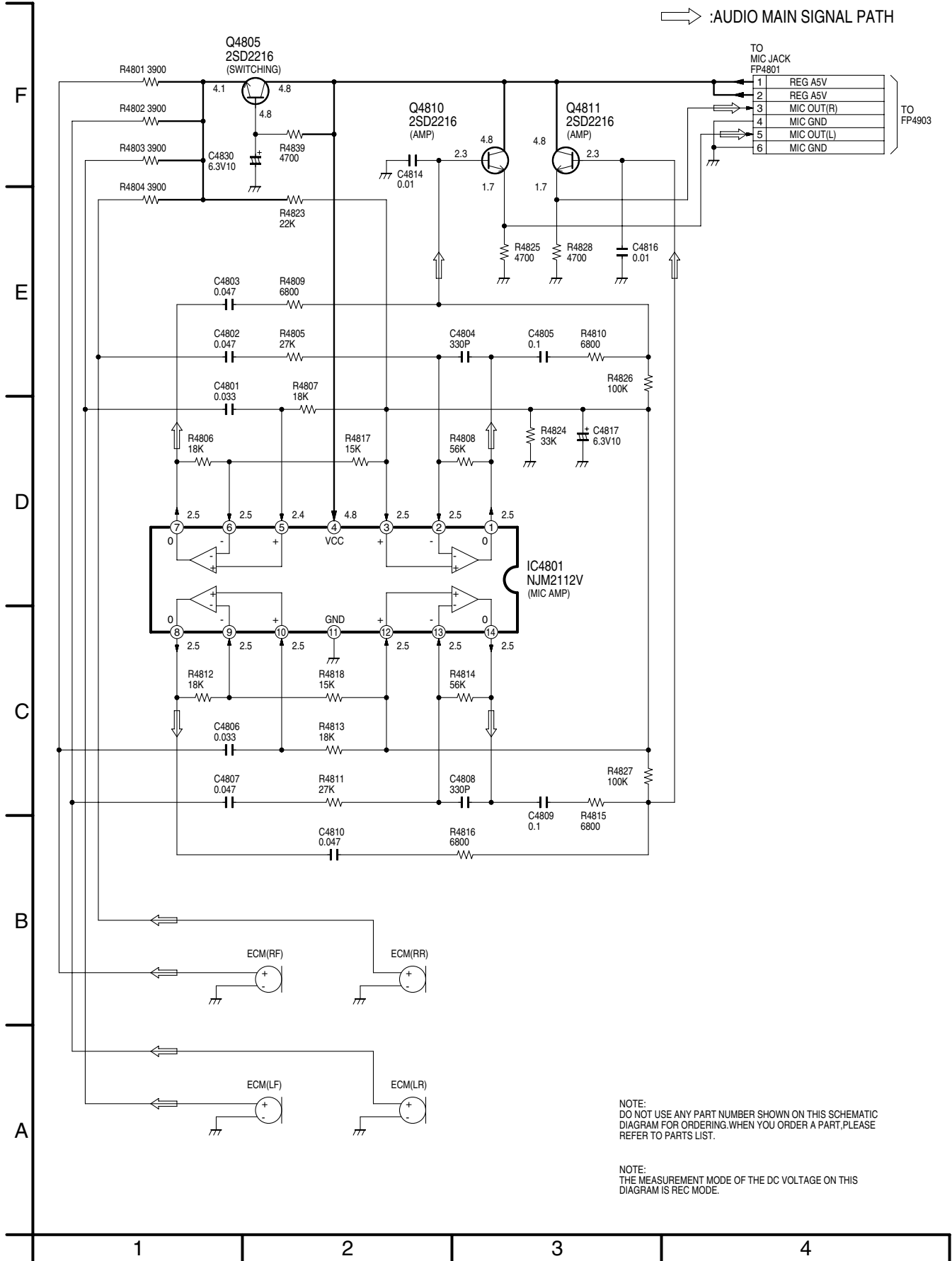




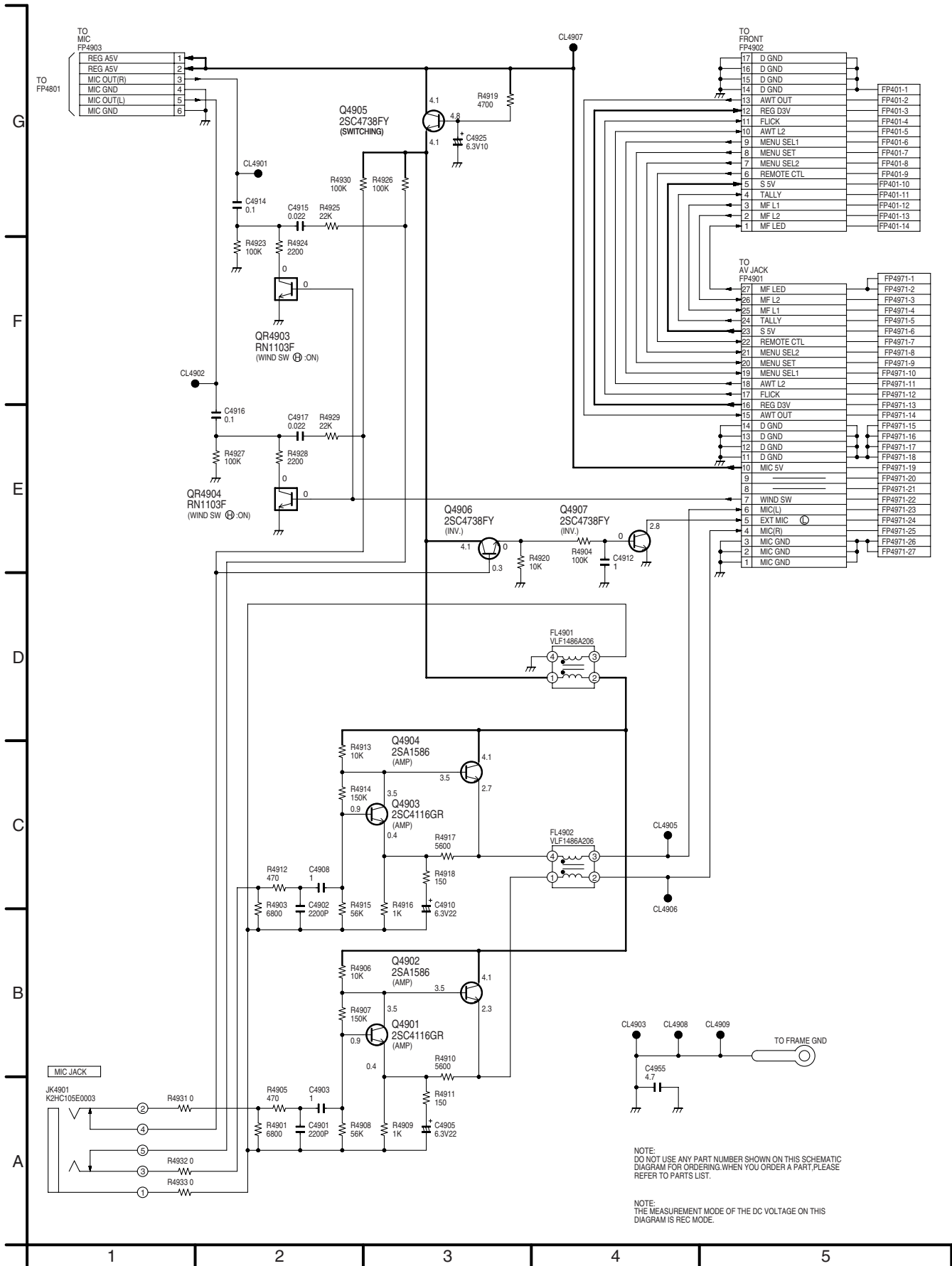
8.2. CCD FLEX. CARD SCHEMATIC DIAGRAM



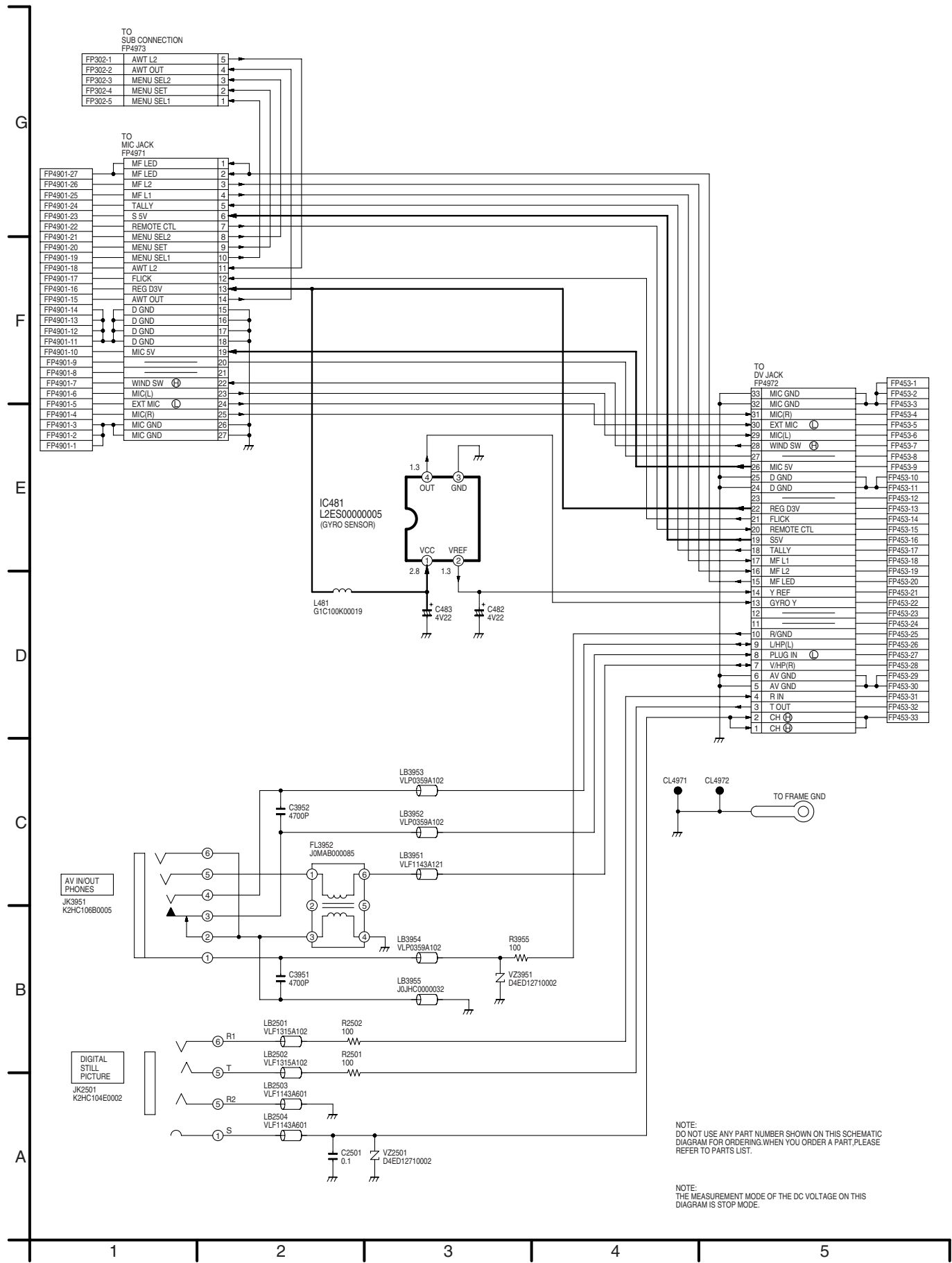
8.3. MIC UNIT SCHEMATIC DIAGRAM



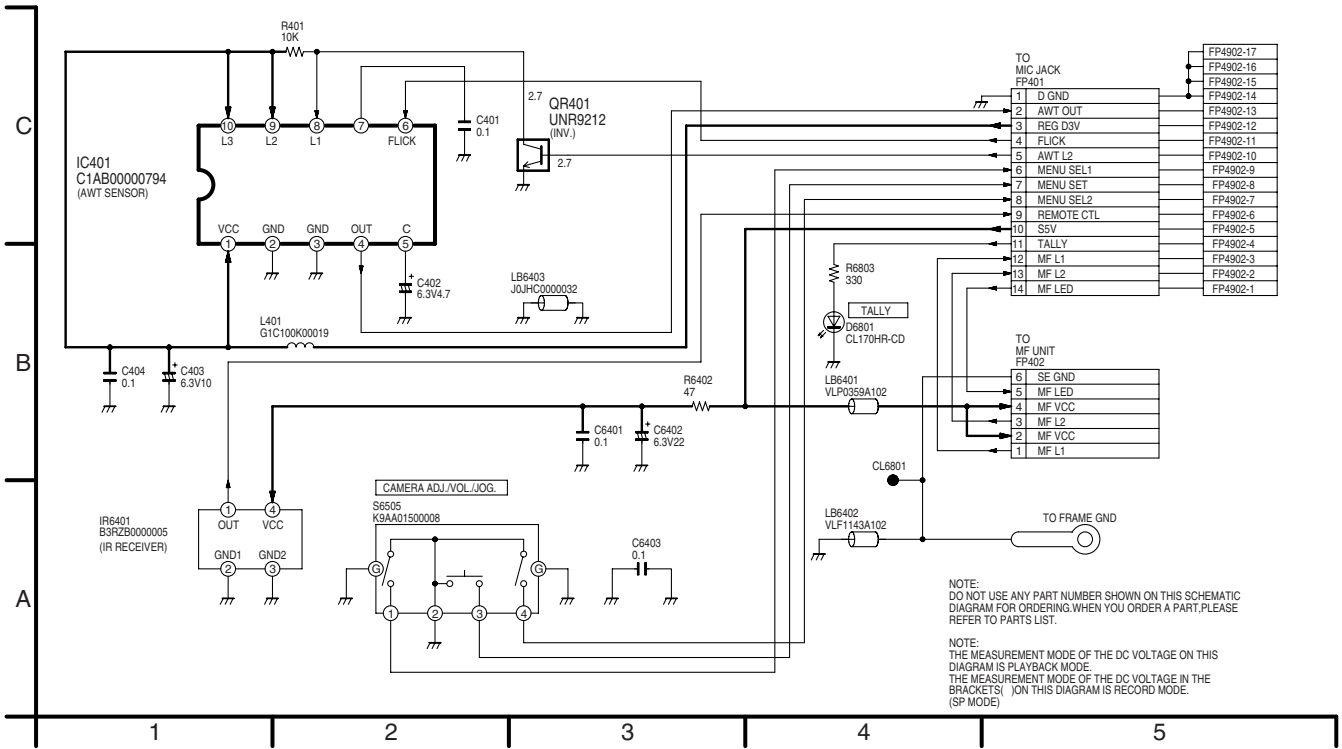
8.4. MIC JACK SCHEMATIC DIAGRAM



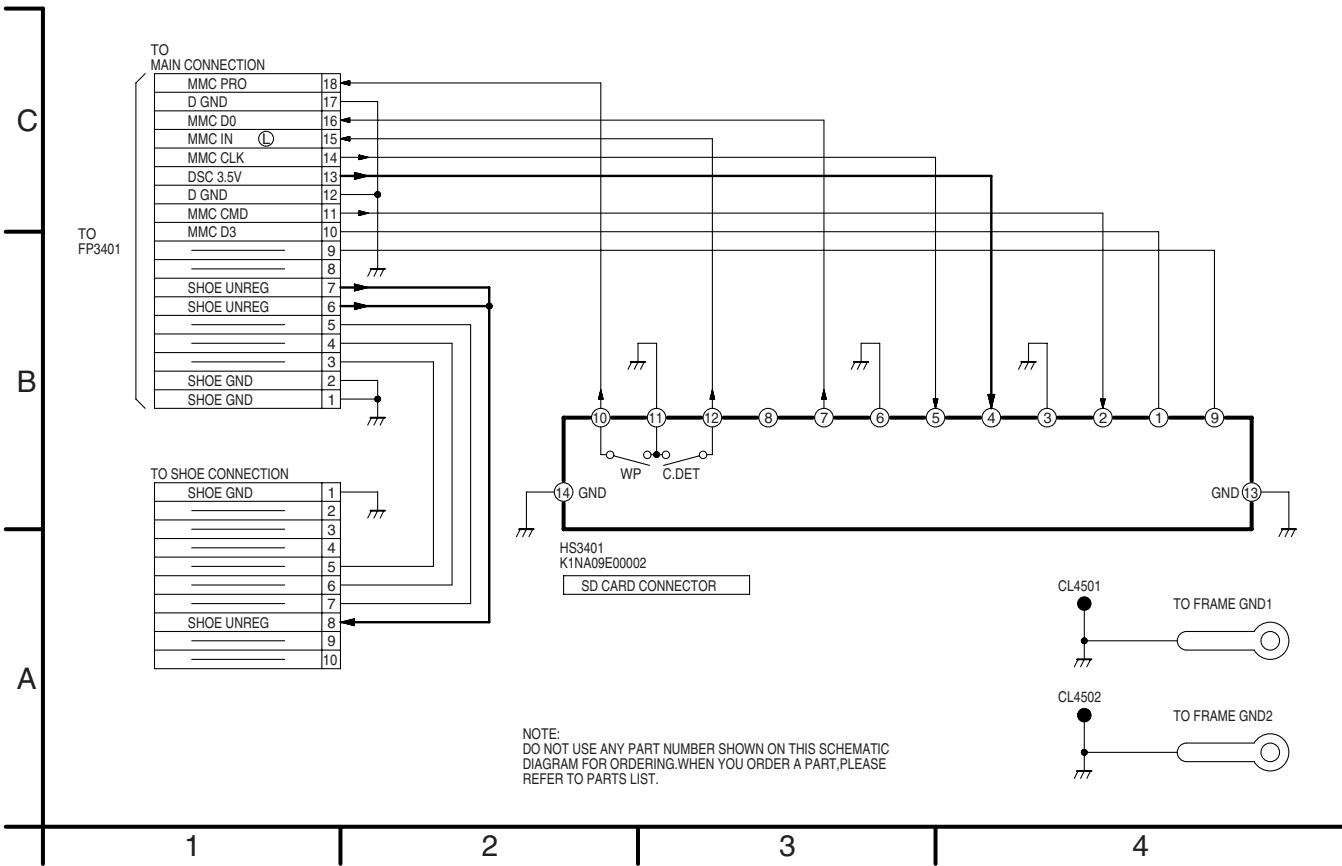
8.5. AV JACK SCHEMATIC DIAGRAM



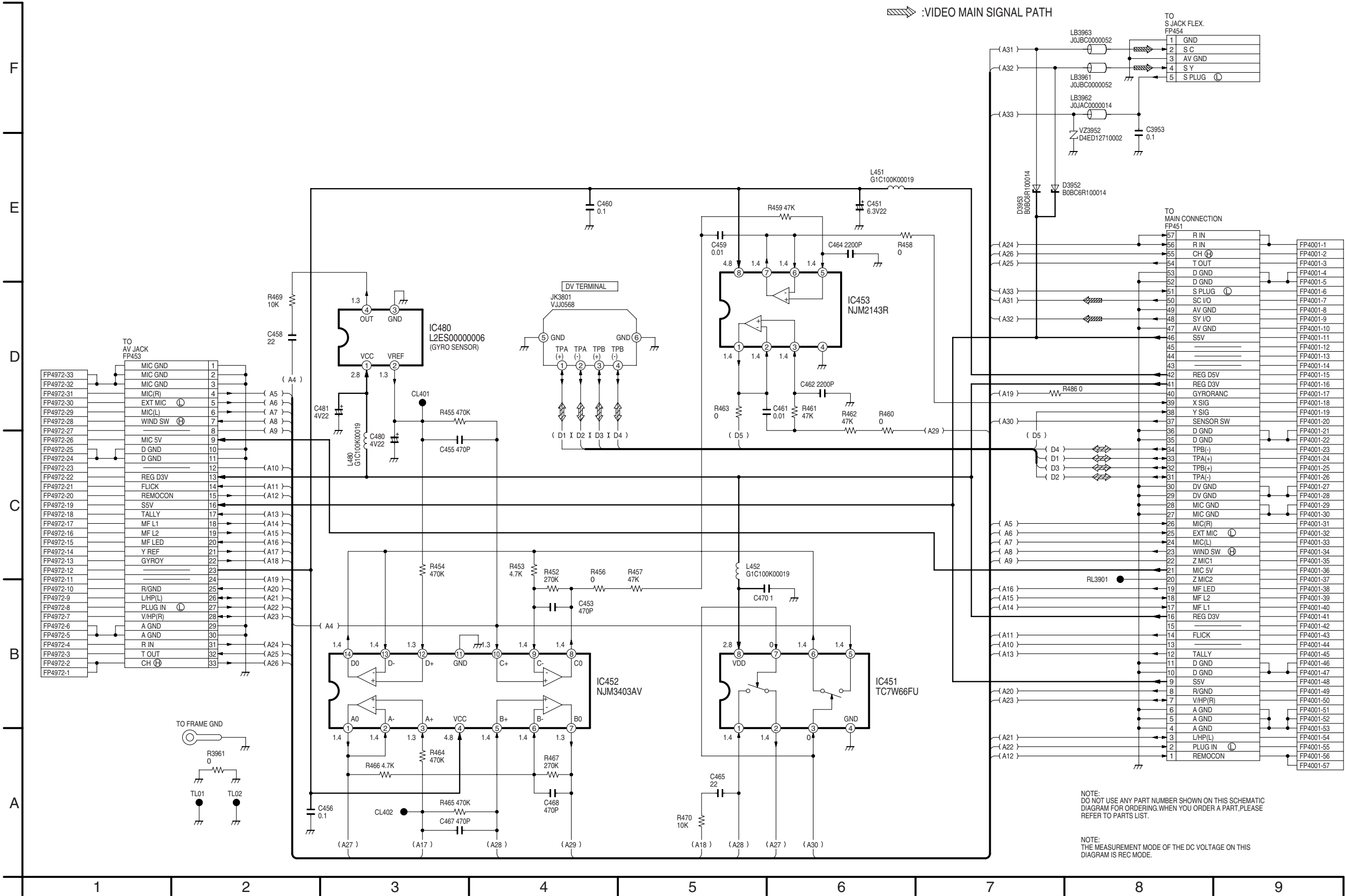
8.6. FRONT SCHEMATIC DIAGRAM



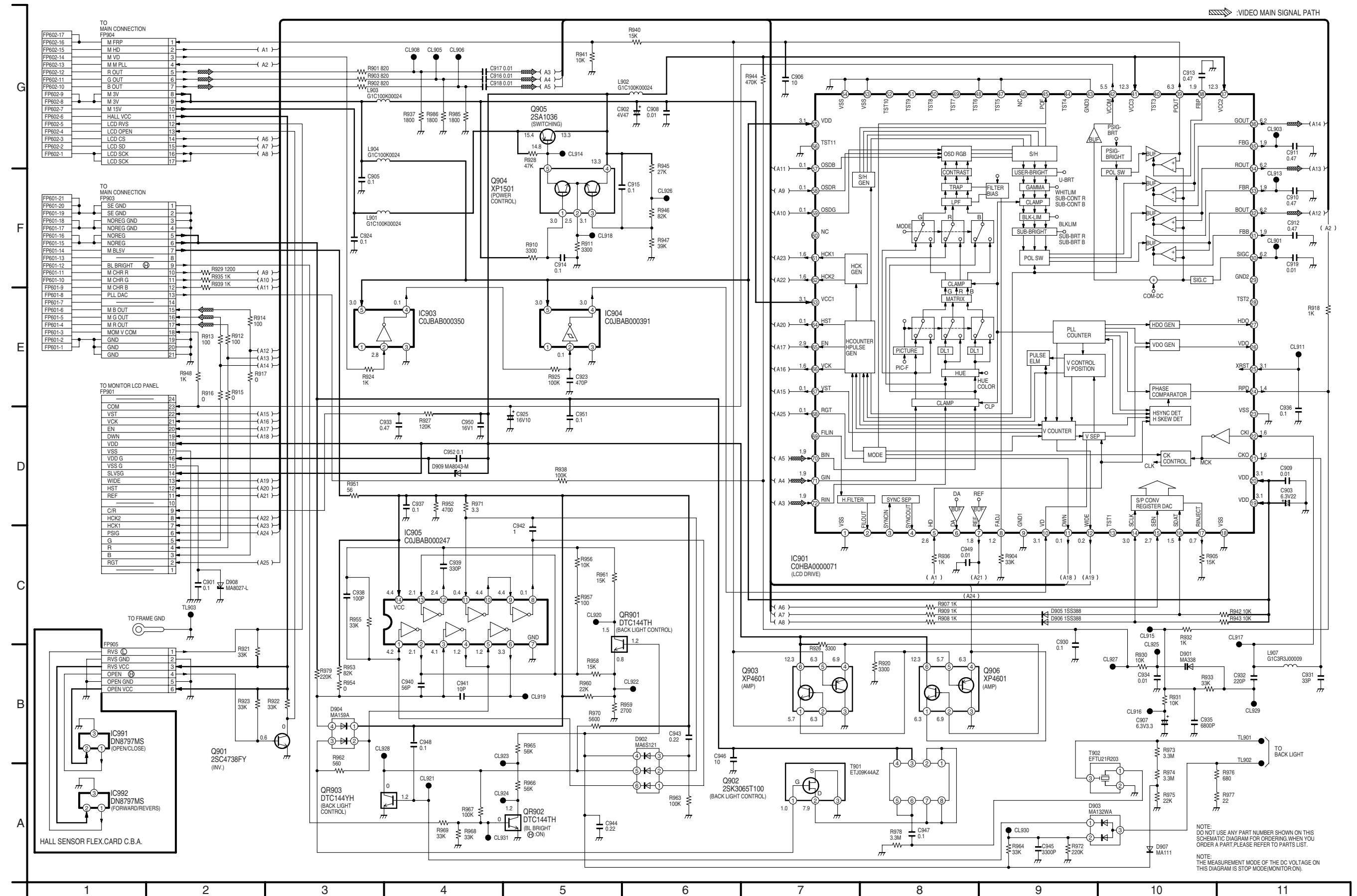
8.7. SD FLEX. CARD UNIT SCHEMATIC DIAGRAM



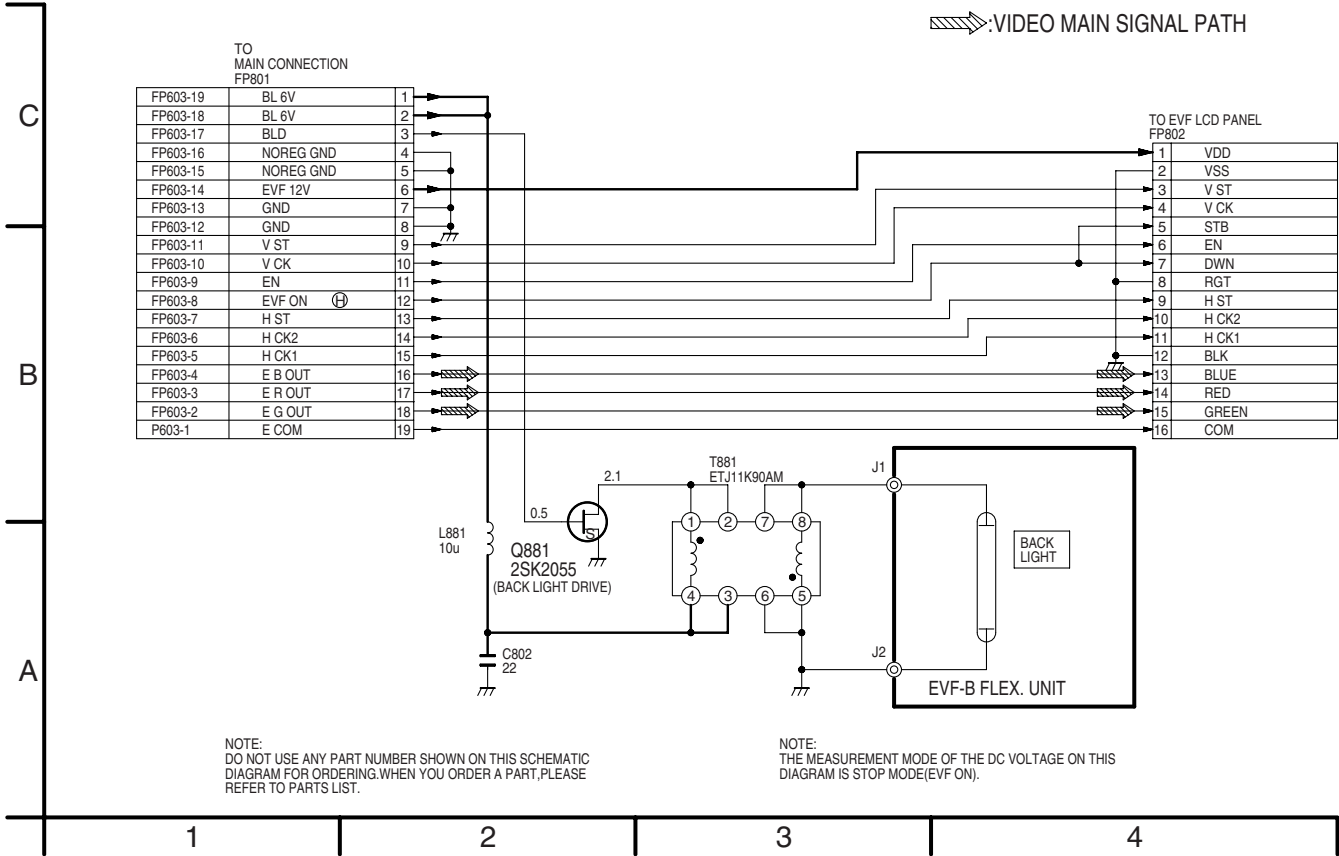
8.8. DV JACK SCHEMATIC DIAGRAM



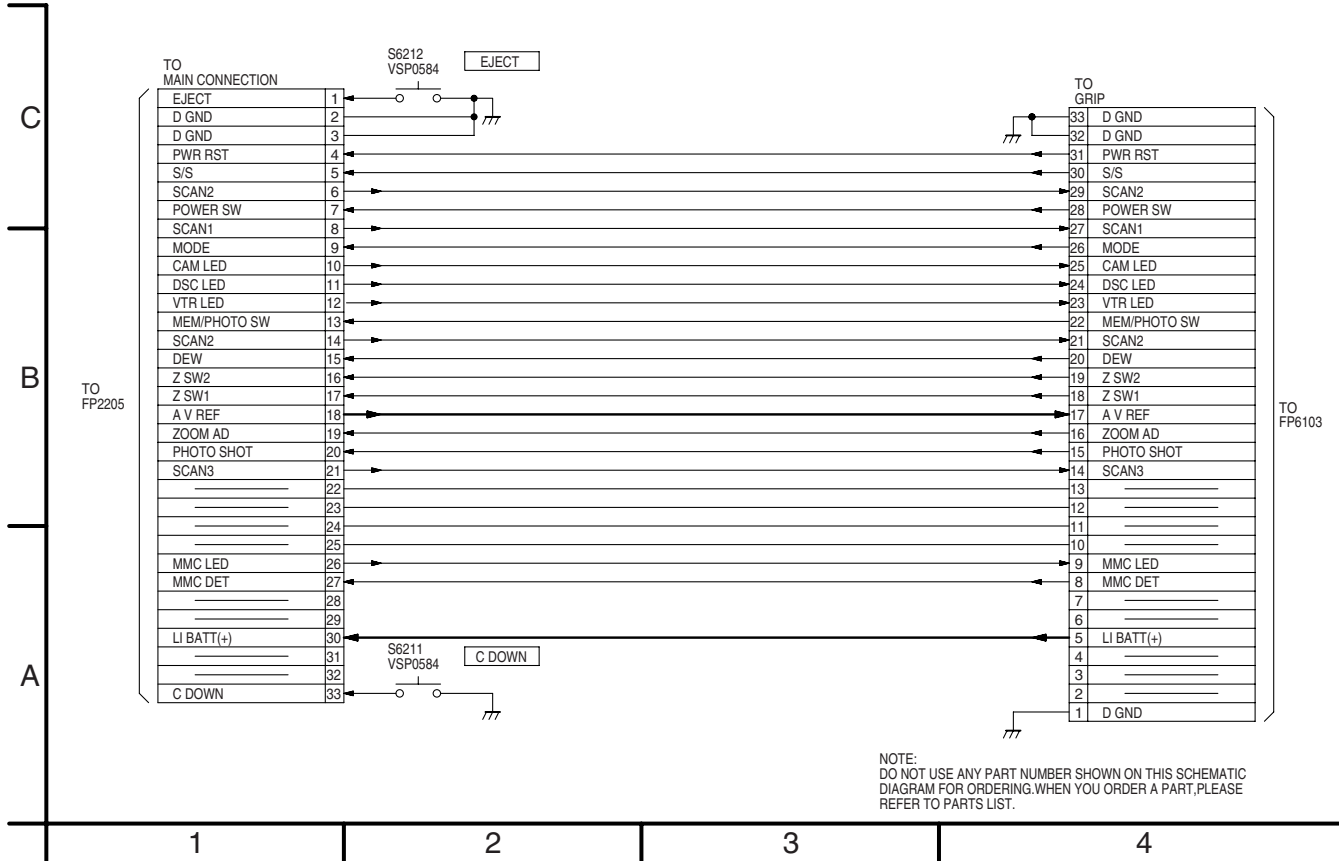
8.9. MONITOR & HALL SENSOR FLEX. UNIT SCHEMATIC DIAGRAM



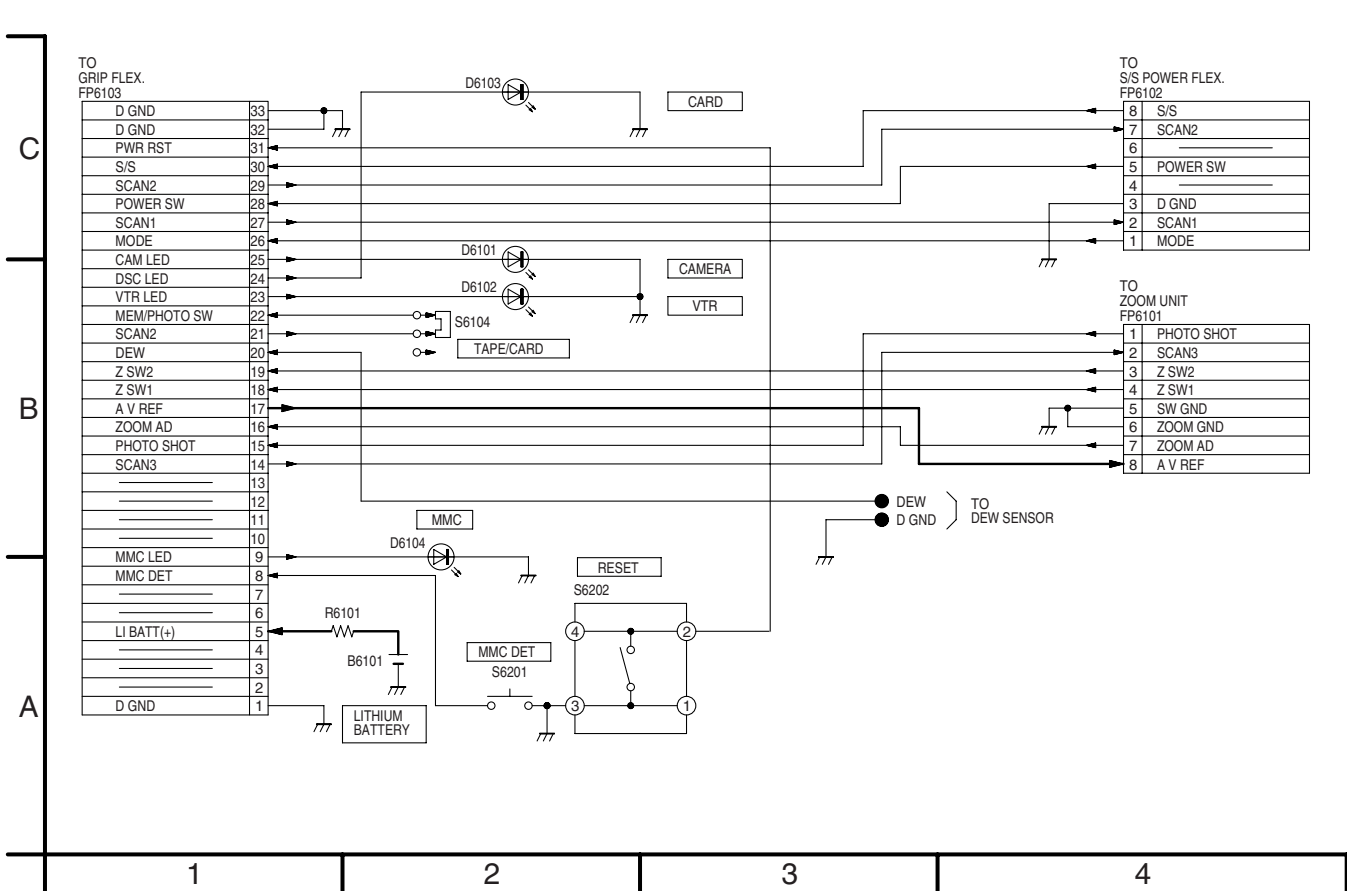
8.10. EVF(A) & EVF(B) FLEX. UNIT SCHEMATIC DIAGRAM



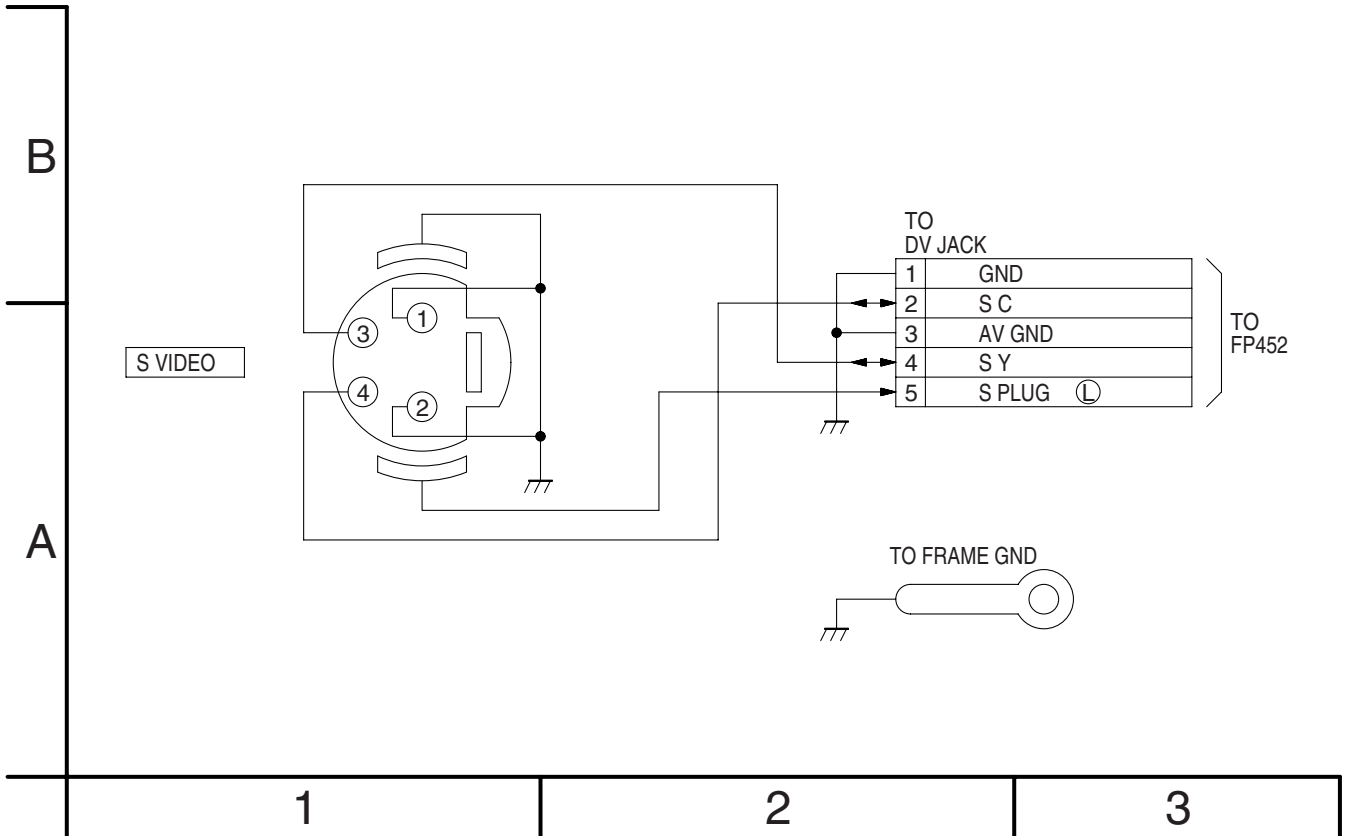
8.11. GRIP FLEX. CARD SCHEMATIC DIAGRAM



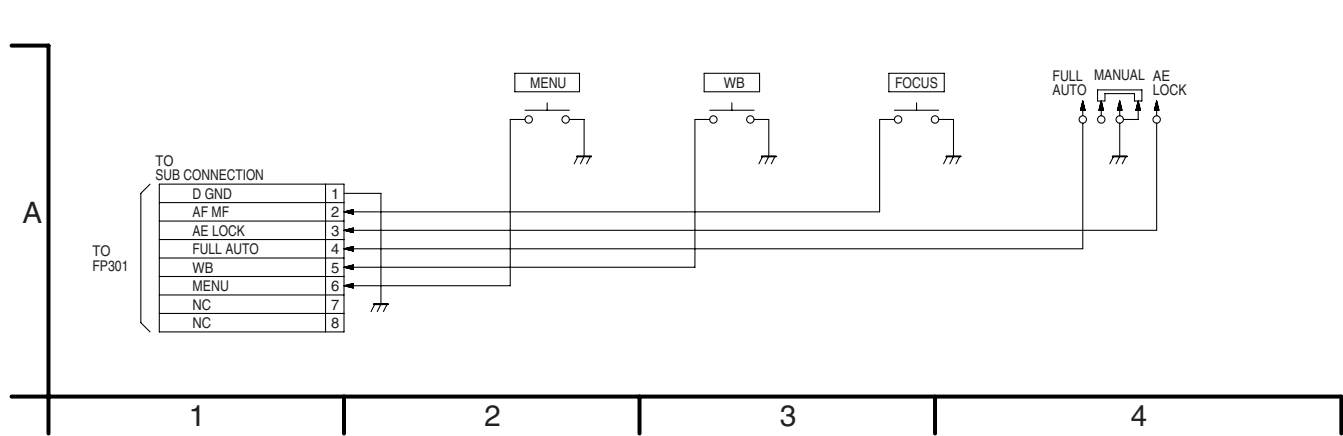
8.12. GRIP SCHEMATIC DIAGRAM



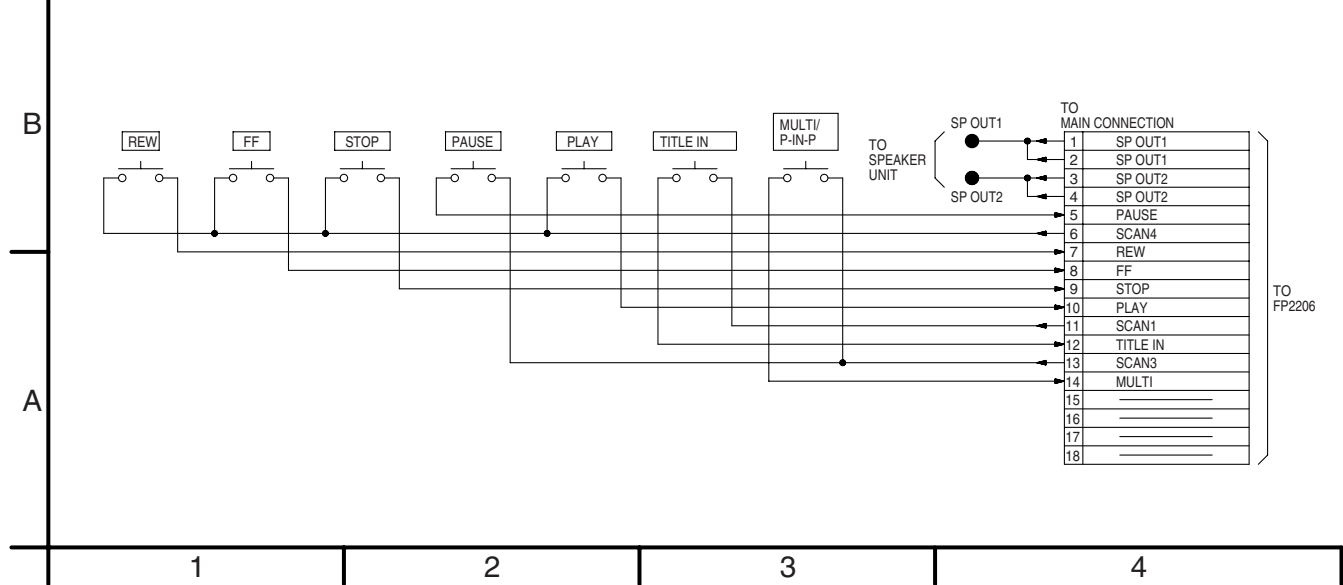
8.13. S JACK FLLEX. UNIT SCHEMATIC DIAGRAM



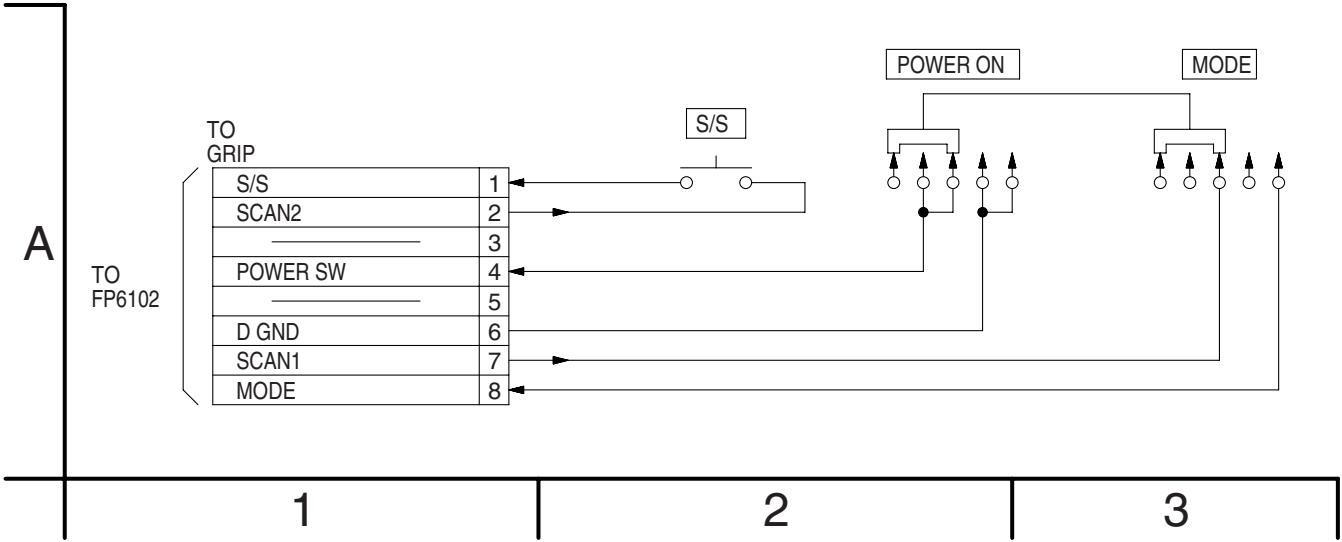
8.14. CAMERA OPERATION UNIT SCHEMATIC DIAGRAM



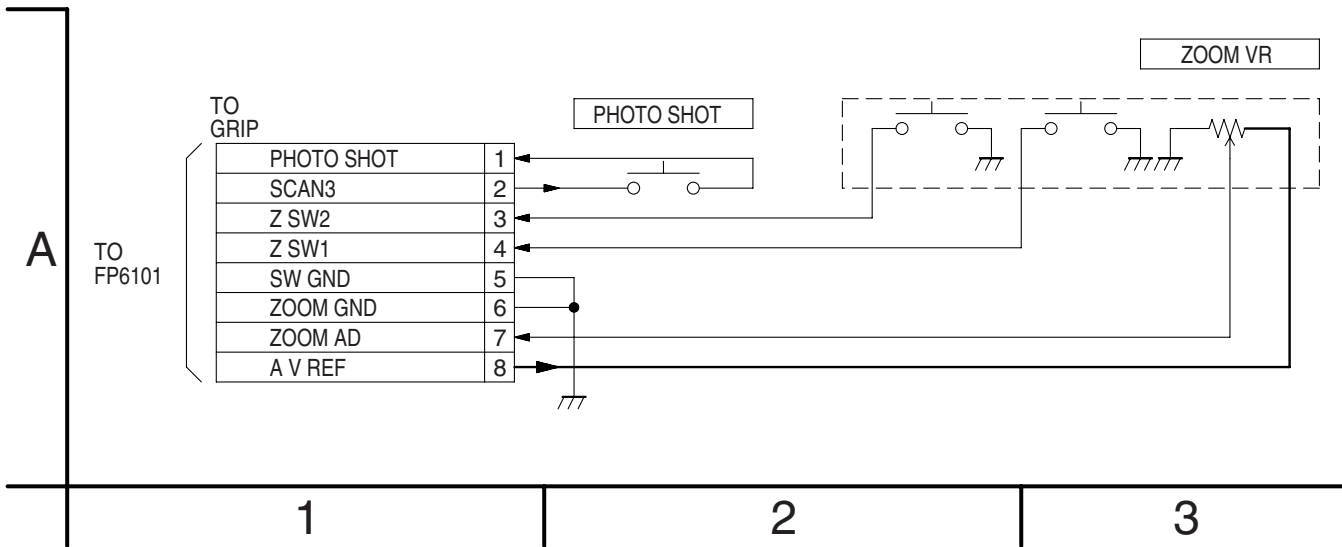
8.15. VTR OPERATION FLEX. UNIT SCHEMATIC DIAGRAM



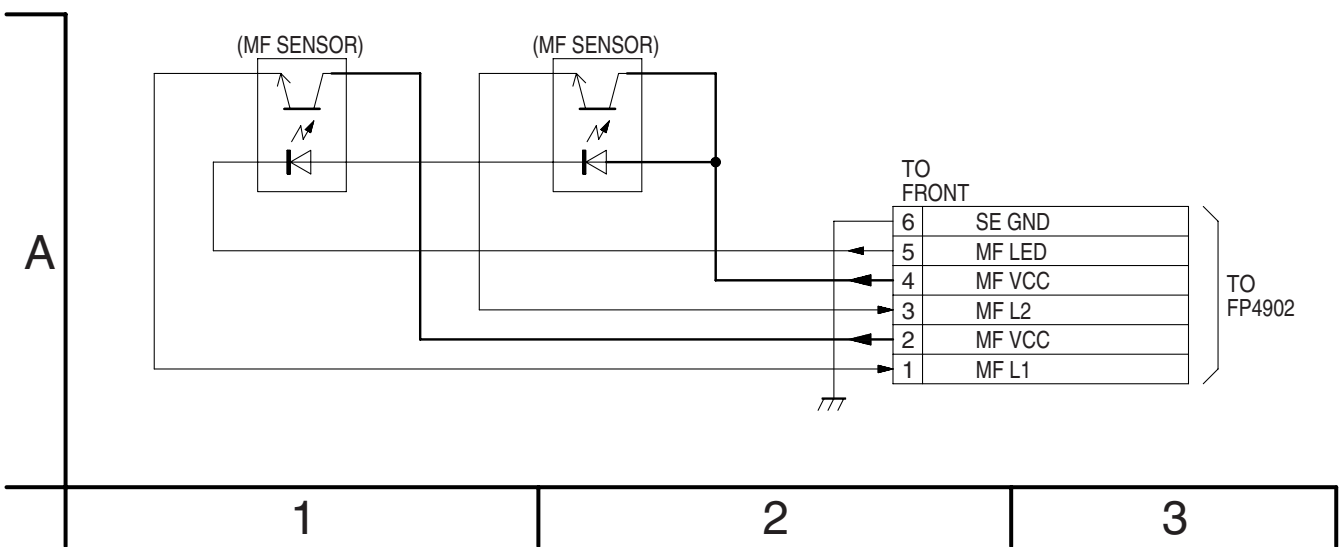
8.16. S/S POWER FLEX. SCHEMATIC DIAGRAM



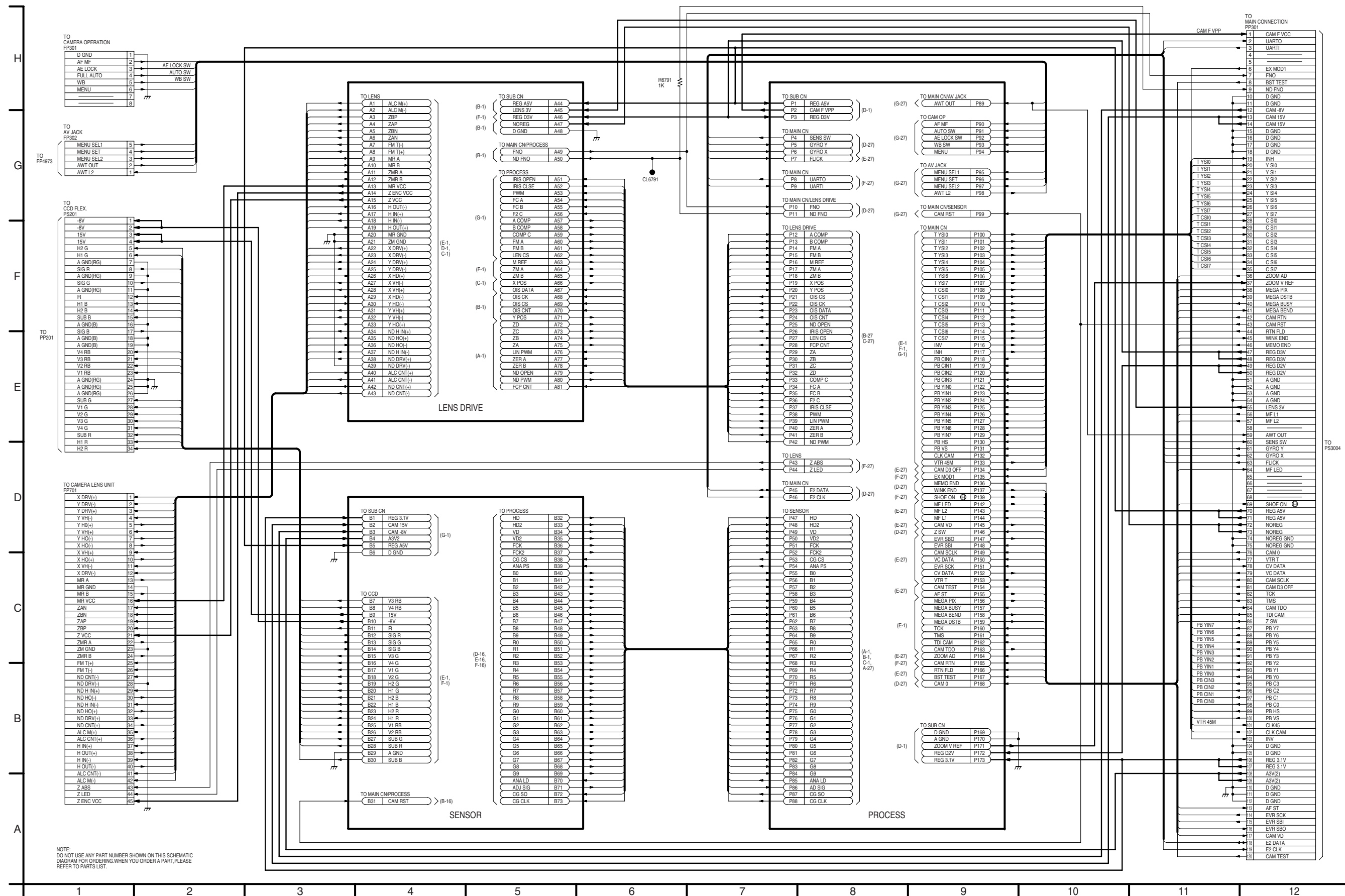
8.17. ZOOM UNIT SCHEMATIC DIAGRAM



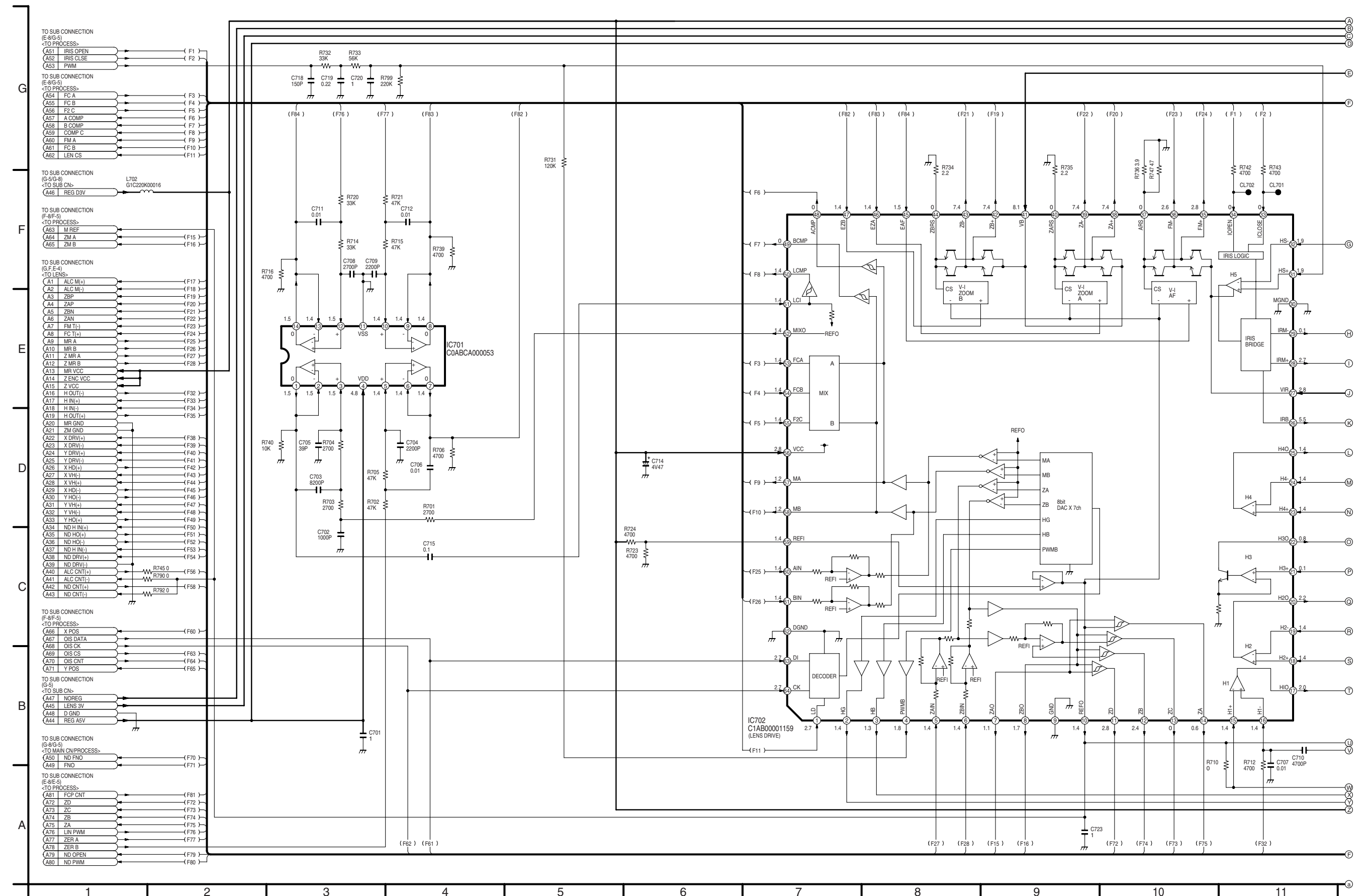
8.18. MF UNIT SCHEMATIC DIAGRAM

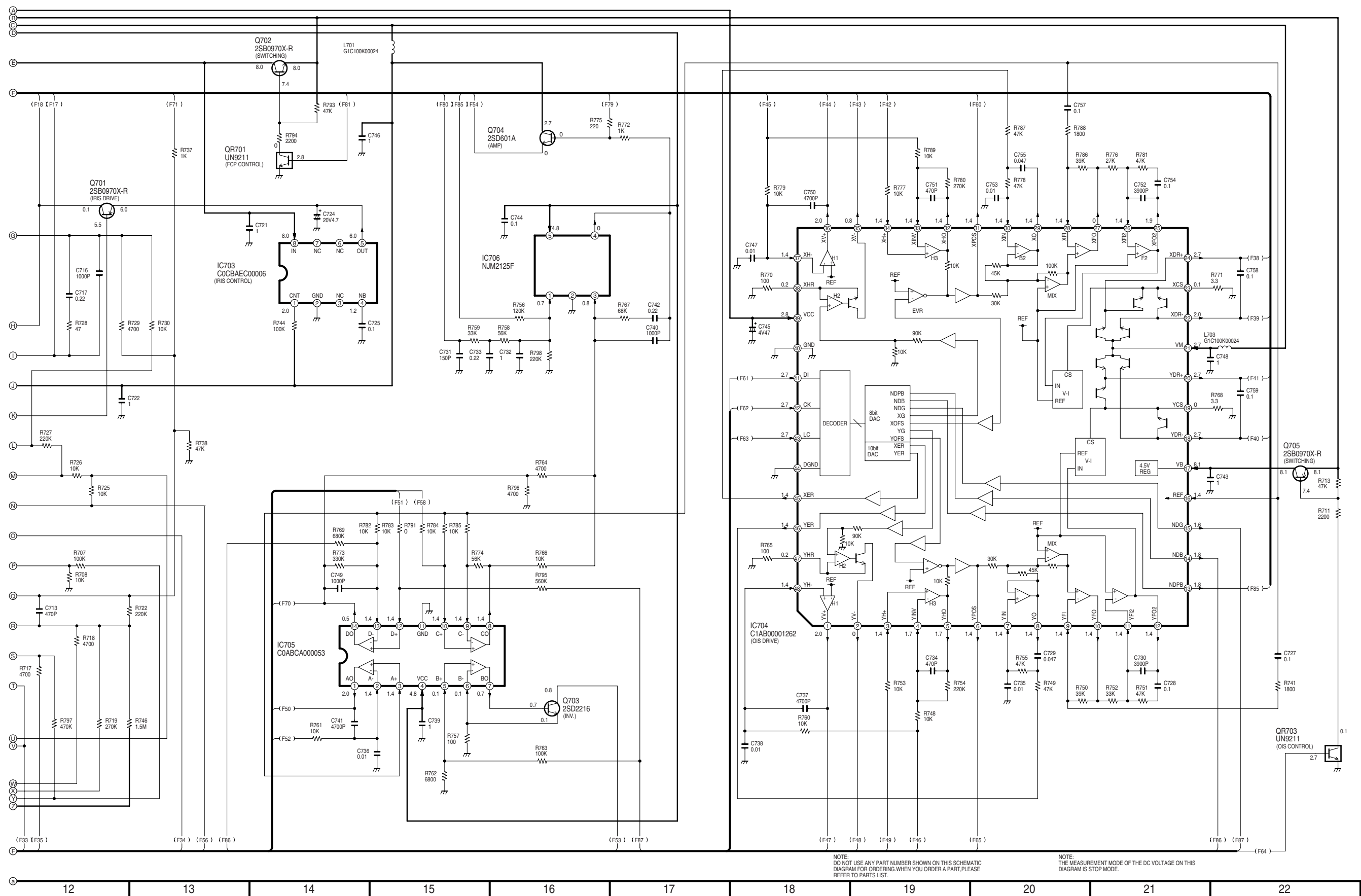


8.19. SUB CONNECTION SCHEMATIC DIAGRAM

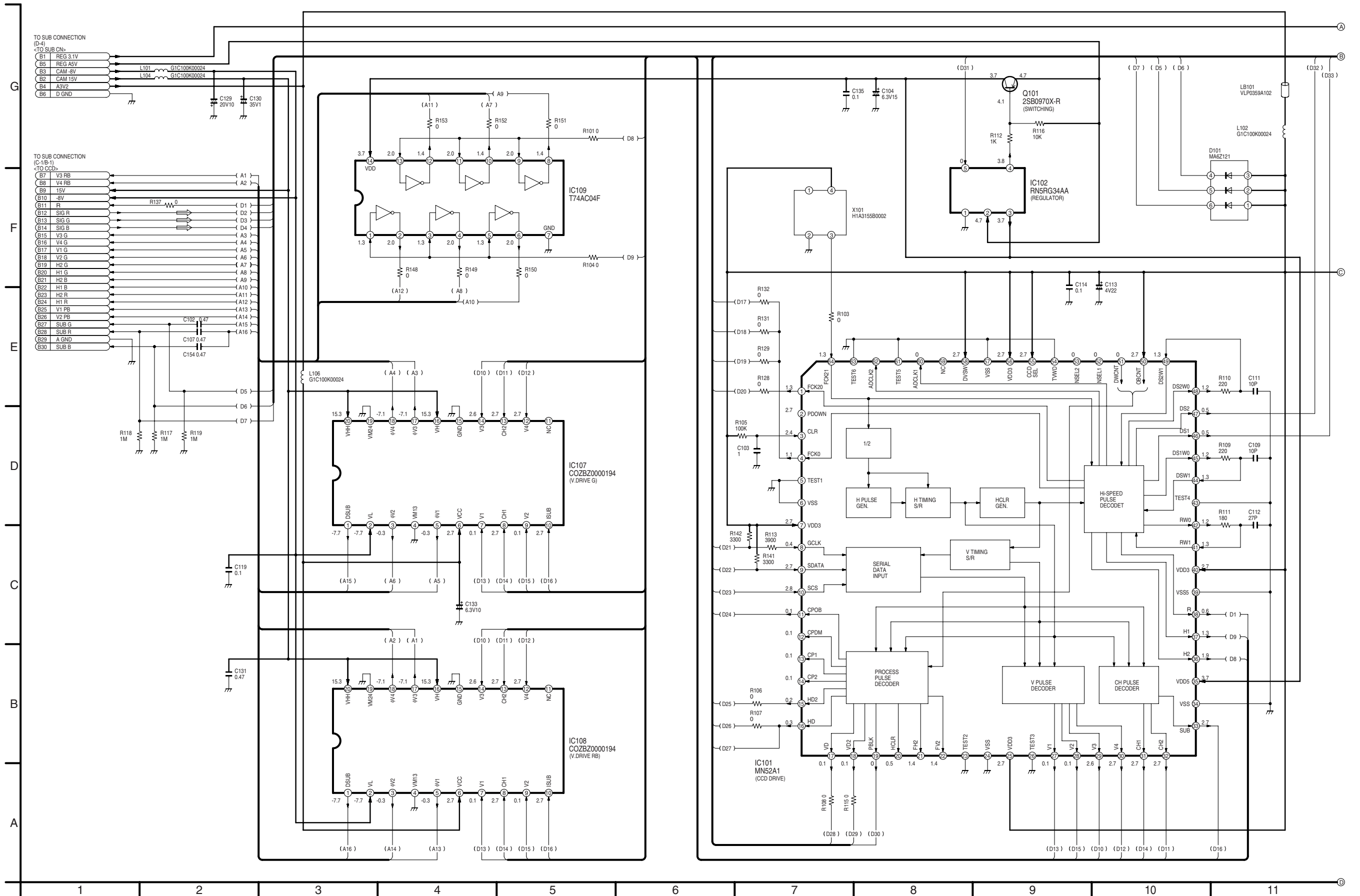


8.20. LENS DRIVE SCHEMATIC DIAGRAM

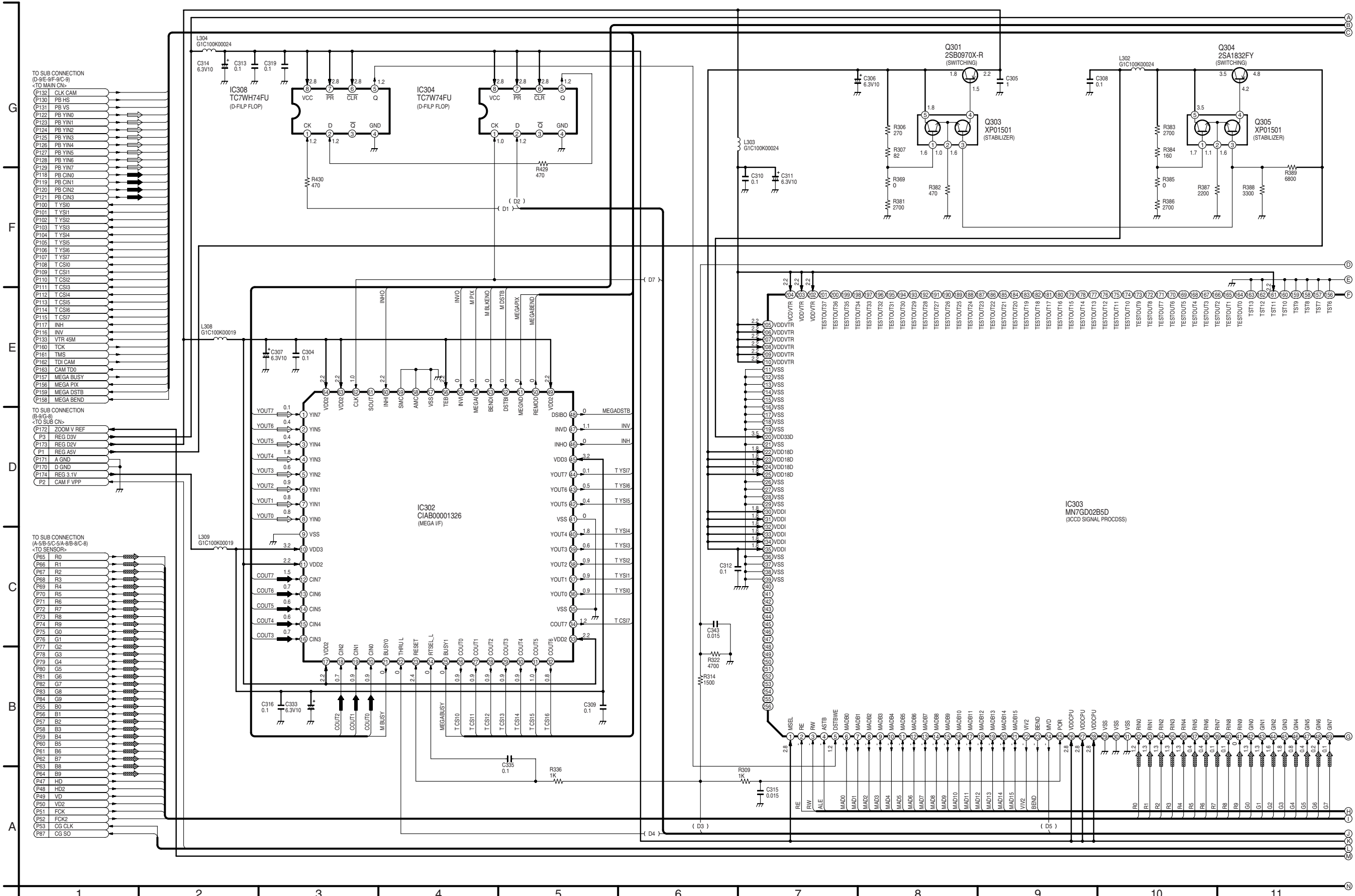


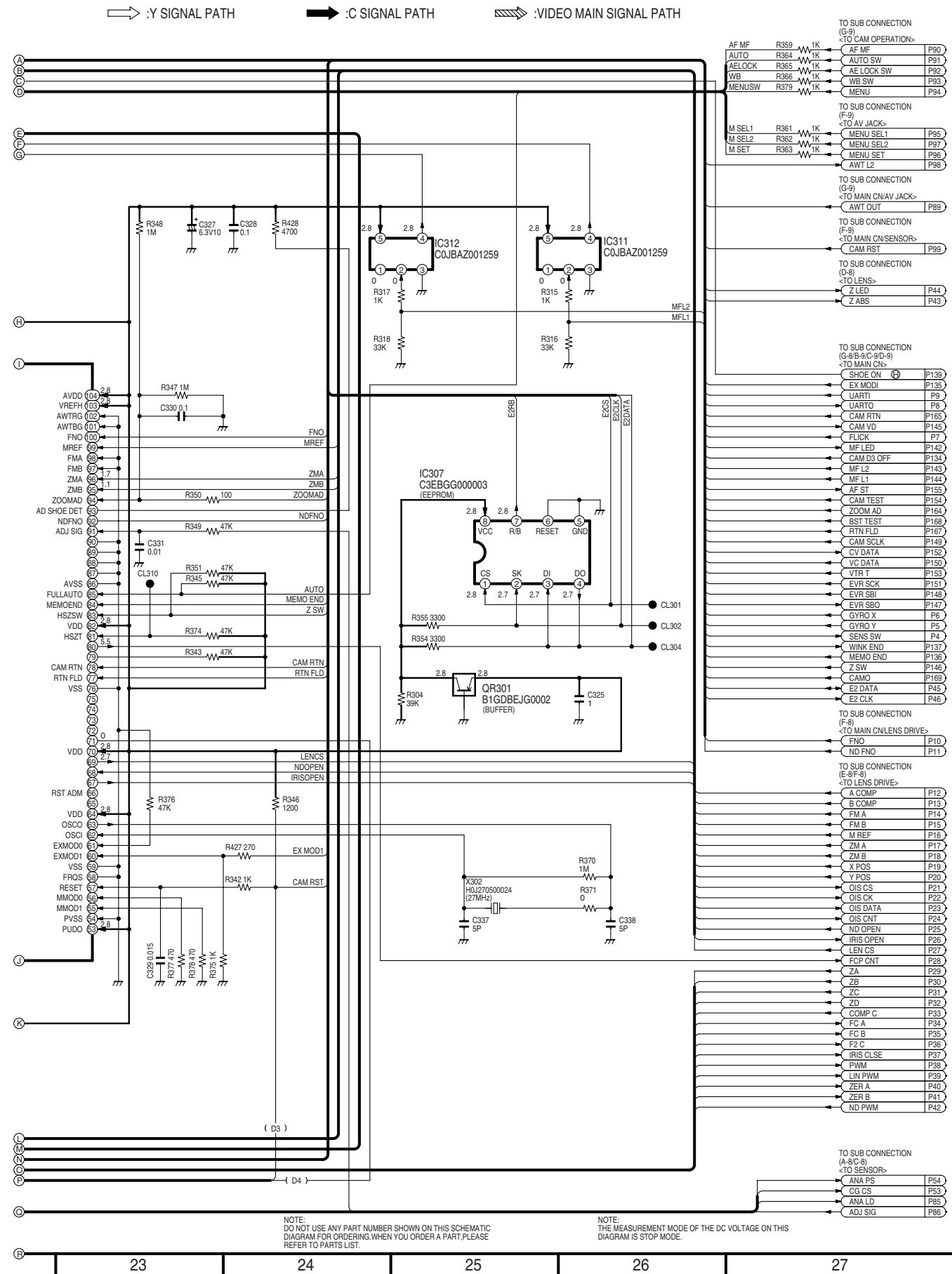


8.21. SENSOR SCHEMATIC DIAGRAM



8.22. PROCESS SCHEMATIC DIAGRAM





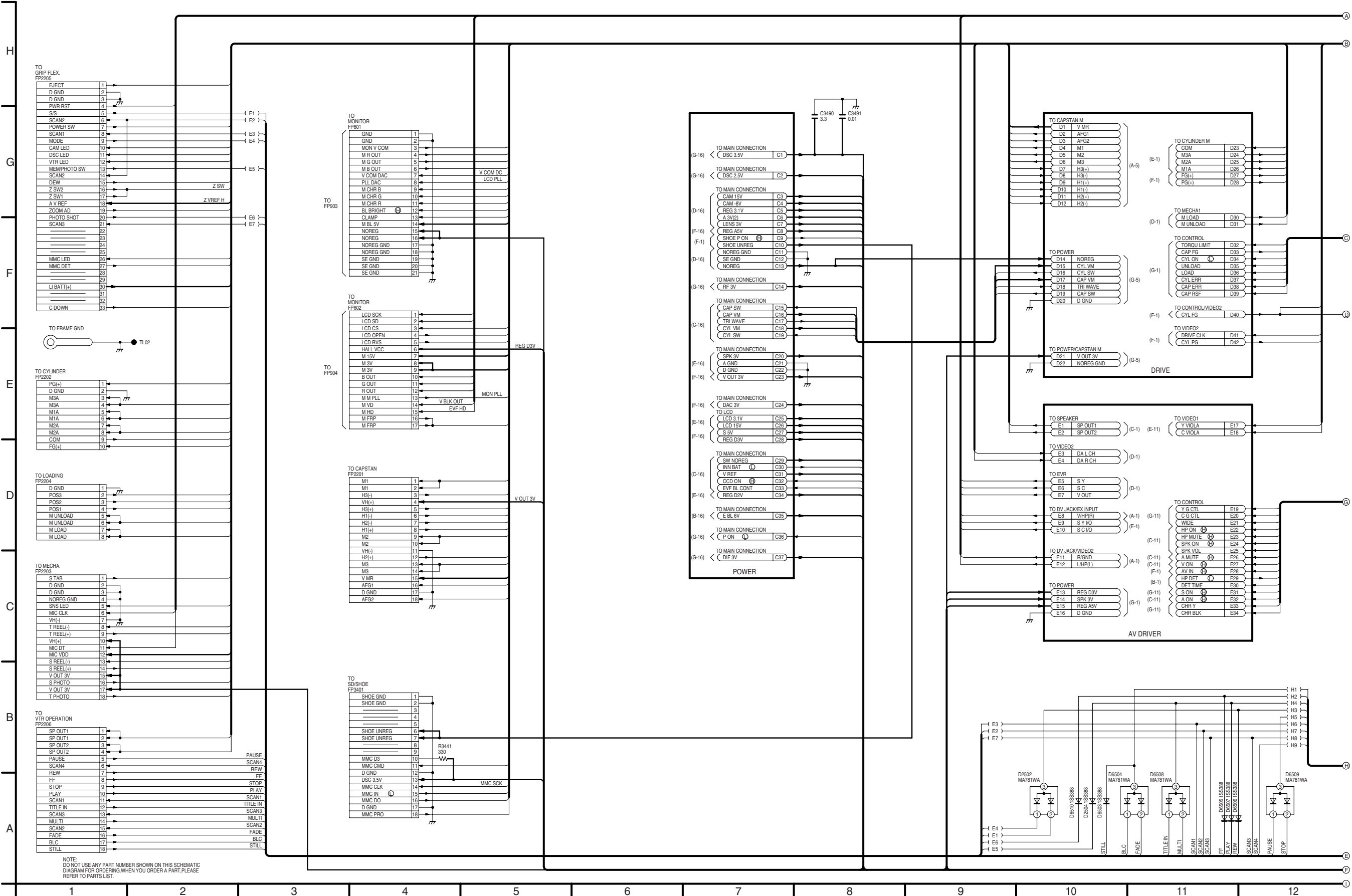
8.22.1. PROCESS I/O TABLE

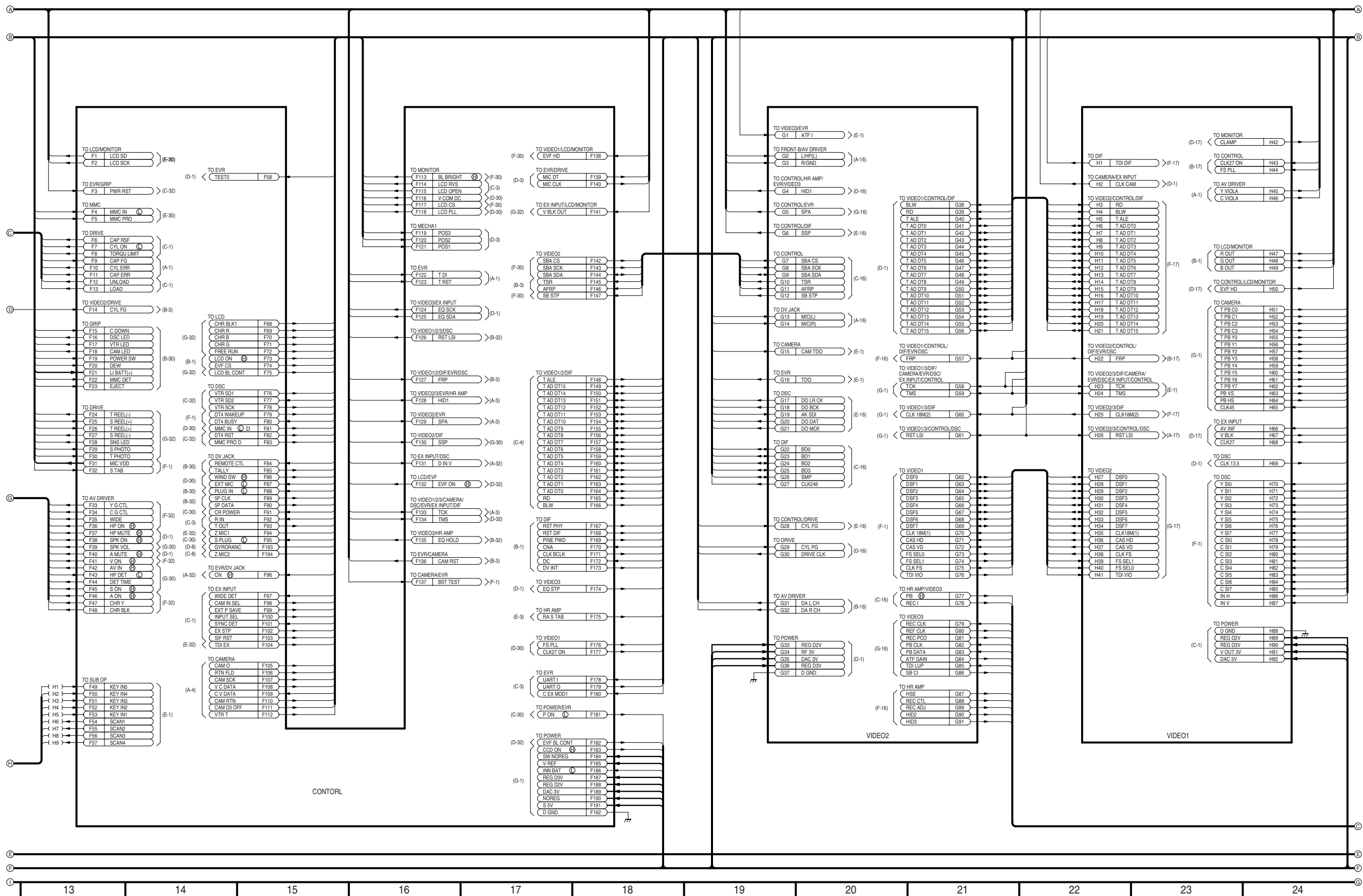
IC305 : CAMERA MICROCOMPUTER

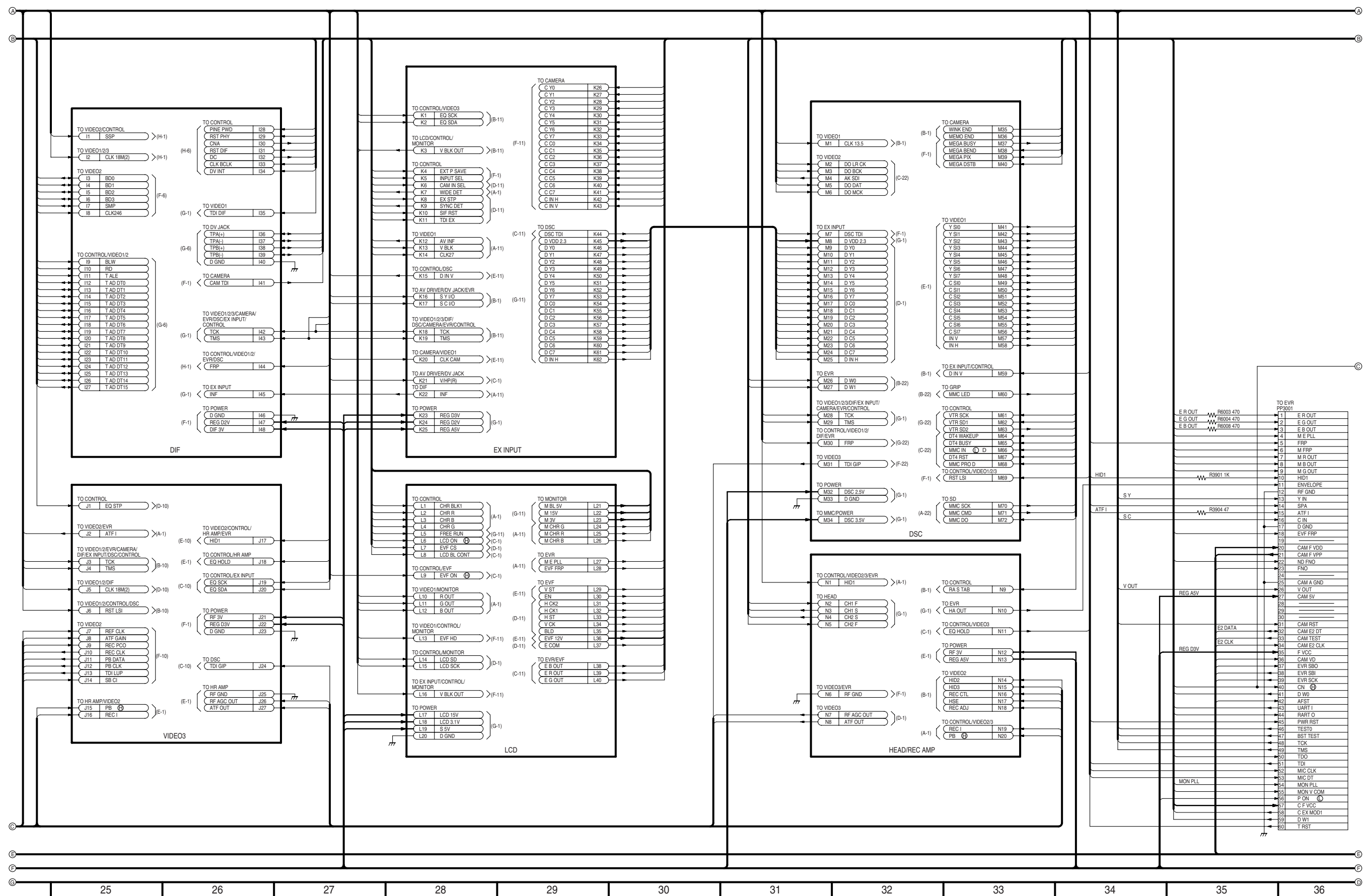
Pin No.	Signal Name	I/O	Explanation	Pin No.	Signal Name	I/O	Explanation
1	LED CONT	O	LED Control	61	EXMOD0	I	EVR Mode
2	MF LED CONT	O	MF LED Control	62	OSCI	I	Clock (27MHz)
3	ANALOG PS	O	Analog PS	63	OSCO	O	Clock (27MHz)
4	AWTL2	O	AWTL2	64	VDD	–	Voltage
5	VSS	–	GND	65	NC	–	NC
6	CGCS	O	Character Generator CS	66	RST ADM	I	Reset
7	WINKEND	O	WINK END	67	NC	–	NC
8	ZEBRA CNT	–	NC	68	NC	–	NC
9	SM SEL	–	NC	69	NC	–	NC
10	AFST	O	Process Timing Pulse	70	VDD	–	Voltage
11	E2CS	O	EEPROM CS	71	NC	–	NC
12	EVR LD	O	EVR Load Pulse	72	NC	–	NC
13	WE SEL	–	NC	73	NC	–	NC
14	VDD	–	Voltage	74	NC	–	NC
15	NC	–	NC	75	NC	–	NC
16	NC	–	NC	76	VSS	–	GND
17	TFS	–	NC	77	RTN FLD	I	Field Detect
18	RFS	–	NC	78	CAM RTN	I	Camera Clock Reference Signal
19	CONV ST	–	NC	79	NC	–	NC
20	NC	–	NC	80	FCP CNT	O	FCP Control
21	SENS SW	O	OIS Sensor SW	81	HSZT	I	High Speed Zoom T
22	VSS	–	GND	82	VDD	–	Voltage
23	OIS CNT	O	OIS Control	83	HSZSW	I	High Speed Zoom SW
24	OIS DA LD	O	OIS Data Load Pulse	84	MEMOEND	I	MEMO END
25	VTR T	I	SYNC Serial Communication Enable for RS-232C Micom	85	FULLAUTO	I	Fullauto Mode
26	CAM TEST	I	Camera Test	86	AVSS	–	GND
27	DSYCLK	O	DSYS Clock	87	NC	–	NC
28	DRW SEL	O	DRW Select	88	NC	–	NC
29	DAS	O	Address Strobe	89	NC	–	NC
30	VDD	–	Voltage	90	NC	–	NC
31	MAD15	I/O	Address/Data	91	ADI SIG	I	ADI Signal
32	MAD14	I/O	Address/Data	92	ND FNO	I	ND F Value
33	MAD13	I/O	Address/Data	93	AD SHOE DET	I	Shoe Detect
34	MAD12	I/O	Address/Data	94	ZOOM AD	I	Zoom Adjustment
35	MAD11	I/O	Address/Data	95	ZMB	I	Zoom MB (Analog IN)
36	MAD10	I/O	Address/Data	96	ZMA	I	Zoom MA (analog IN)
37	MAD9	I/O	Address/Data	97	FMB	I	Focus MB (Analog IN)
38	MAD8	I/O	Address/Data	98	FMA	I	Focus MA (Analog IN)
39	VSS	–	GND	99	MREF	I	M Reference (Analog IN)
40	MAD7	I/O	Address/Data	100	FNO	I	F Value
41	MAD6	I/O	Address/Data	101	AWT BG	–	GND
42	MAD5	I/O	Address/Data	102	AWT RG	–	GND
43	MAD4	I/O	Address/Data	103	VREF (H)	–	Voltage
44	MAD3	I/O	Address/Data	104	AVDD	–	Voltage
45	MAD2	I/O	Address/Data	105	NC	–	NC
46	MAD1	I/O	Address/Data	106	NMI	–	NC
47	MAD0	I/O	Address/Data	107	VSS	–	GND
48	VDD	–	Voltage	108	MENU SEL2	I	Menu Select 2
49	NC	–	NC	109	MENU SEL1	I	Menu Select 1
50	RE (H)	O	Read Enable ON/OFF	110	MFL2	I	MF Ring 2
51	WE (H)	–	NC	111	MFL1	I	MF Ring 1
52	WE (L)	O	Write Enable ON/OFF	112	NC	–	NC
53	PVDD	–	Voltage	113	BEND	I	Data Block End Request
54	PVSS	–	GND	114	V1V2	I	Act Detect End
55	NMOD1	I	EVR Mode	115	MVD	I	M VD
56	NMOD0	I	EVR Mode	116	VDD	–	Voltage
57	RESET	I	Power ON Reset	117	AELOCK	I	AE Lock
58	FRQS	I	FRQS	118	M/SET	I	M/SET
59	VSS	–	GND	119	AFMF	I	AF/MF Select SW
60	EXMOD1	I	EVR Mode	120	WB	I	White Blance

Pin No.	Signal Name	I/O	Explanation	Pin No.	Signal Name	I/O	Explanation
121	MENU	I	Menu SW	165	HD	I	HD
122	BST TEST	I	Boundary Scan Test SW	166	VDD	–	Voltage
123	PSAVE	I	Power Save	167	NC	–	NC
124	MFN SW	–	NC	168	ZEBRACLK	O	Zebra Clock
125	VSS	–	GND	169	AWTFLICK	I	AWT Flick
126	MFFSW	–	NC	170	NC	–	NC
127	E2 RB	I	EEPROM Ready/Busy	171	NC	–	NC
128	TITLEMULTI	I	Multi SW	172	VSS	–	GND
129	TITLEIN	I	Title SW	173	NC	–	NC
130	ZABS	I	Zoom Encoder	174	NC	–	NC
131	CAMO	I	VTR Data	175	NC	–	NC
132	NC	–	NC	176	SHOE SCK	O	Shoe Serial Clock
133	NC	–	NC	177	SHOE SDO	O	Shoe Serial Data
134	NC	–	NC	178	SHOE SDI	I	Shoe Serial Data
135	VDD	–	Voltage	179	VDD	–	Voltage
136	NC	–	NC	180	ADC SCK	I	OIS Serial Clock
137	NC	–	NC	181	ADC SDO	O	OIS Serial Data
138	NC	–	NC	182	ADC SDI	I	OIS Serial Data
139	NC	–	NC	183	NC	–	NC
140	NC	–	NC	184	VPP	–	Voltage
141	SHOE ON (H)	O	Shoe Power ON/OFF	185	NC	–	NC
142	NC	–	NC	186	VSS	–	GND
143	NC	–	NC	187	OISDA SCK	O	D/A Converter Clock
144	NC	–	NC	188	OISDA SDO	O	D/A Converter Data
145	VSS	–	GND	189	OISDA SDI	I	D/A Converter Data
146	NC	–	NC	190	IND SCK	O	E2 Clock
147	NC	–	NC	191	IND SDO	O	E2 Data
148	NC	–	NC	192	VDD	–	Voltage
149	NC	–	NC	193	IND SDI	I	E2 Data
150	NC	–	NC	194	E2CLK	O	EEPROM Clock
151	VDD	–	Voltage	195	E2DO	O	EEPROM Serial Data
152	NC	–	NC	196	E2DI	–	NC
153	NC	–	NC	197	NC	–	NC
154	NC	–	NC	198	VSS	–	GND
155	BCOMP	I	Linear Adjust (BCOMP Capture)	199	UATRO	O	UATRO 0
156	ACOMP	I	Linear Adjust (ACOMP Capture)	200	UATR1	I	UATRO 1
157	NC	–	NC	201	EVR SCK	I	EVR Serial Clock
158	NC	–	NC	202	EVR SBO	O	EVR Serial Data
159	NC	–	NC	203	EVR SBI	I	EVR Serial Data
160	VSS	–	GND	204	CAM SCLK	I	CAMERA Serial Clock
161	NC	–	NC	205	VDD	–	Voltage
162	NC	–	NC	206	CV DATA	O	CV Data
163	NC	–	NC	207	VC DATA	I	VC Data
164	NC	–	NC	208	NC	–	NC

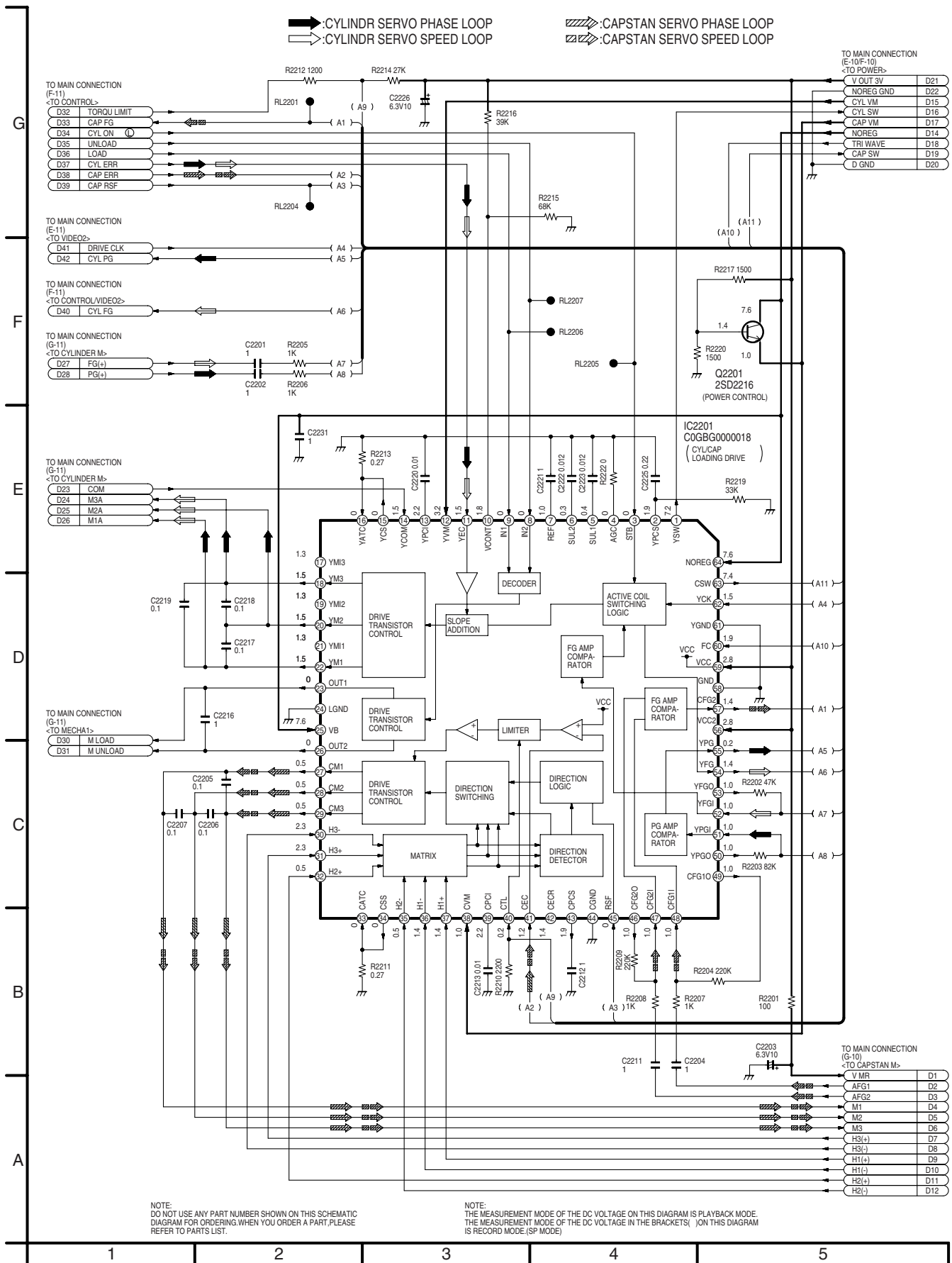
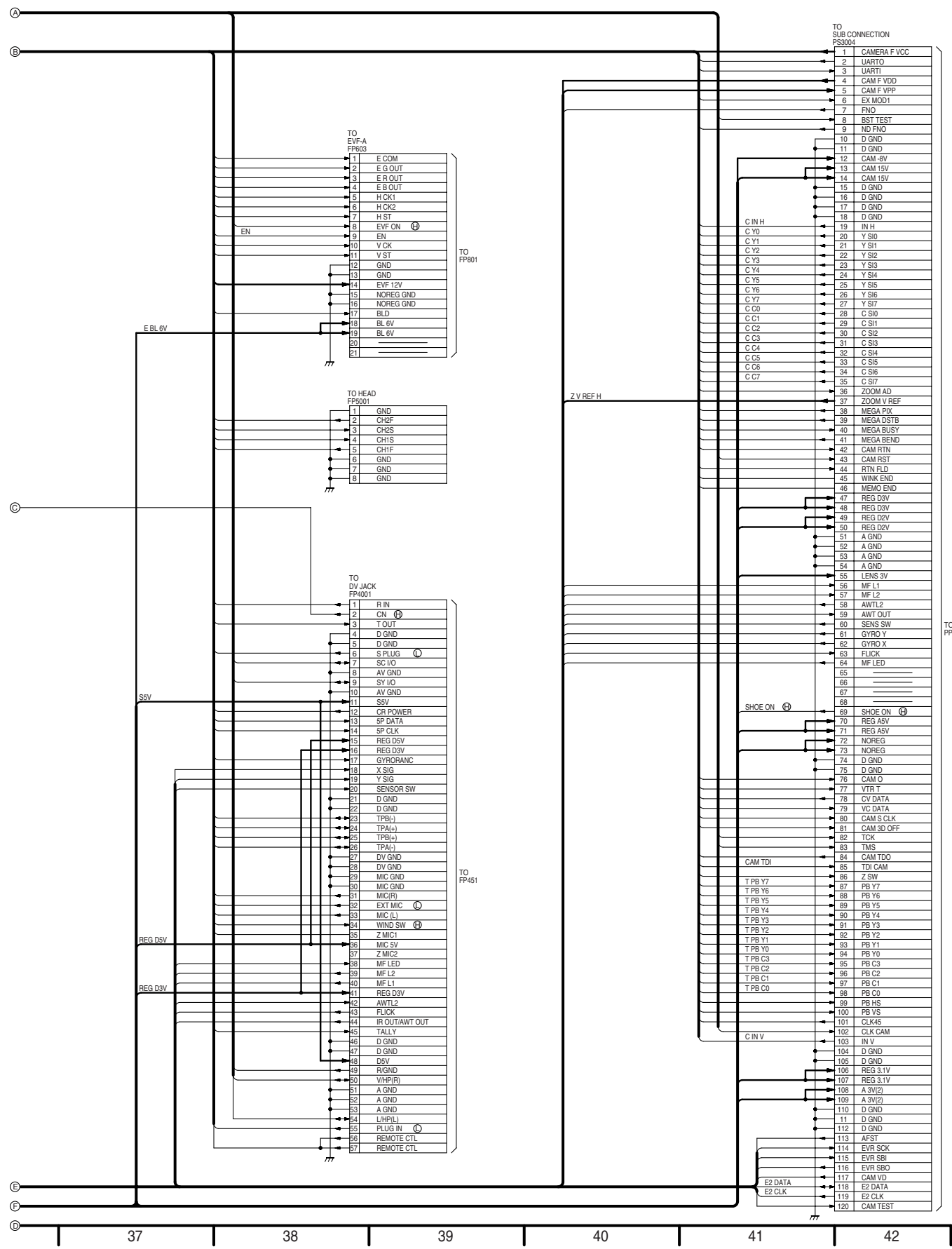
8.23. MAIN CONNECTION SCHEMATIC DIAGRAM



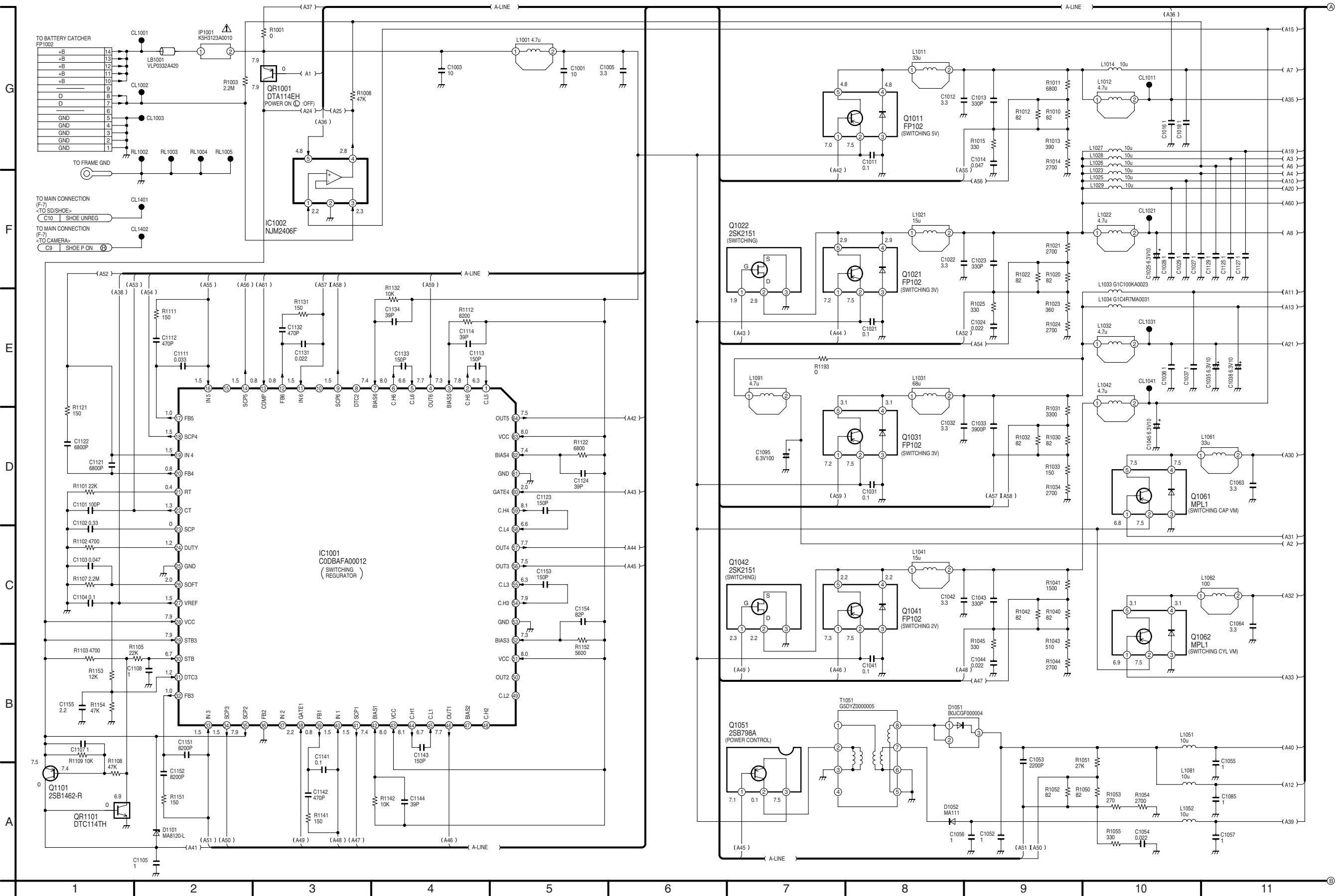


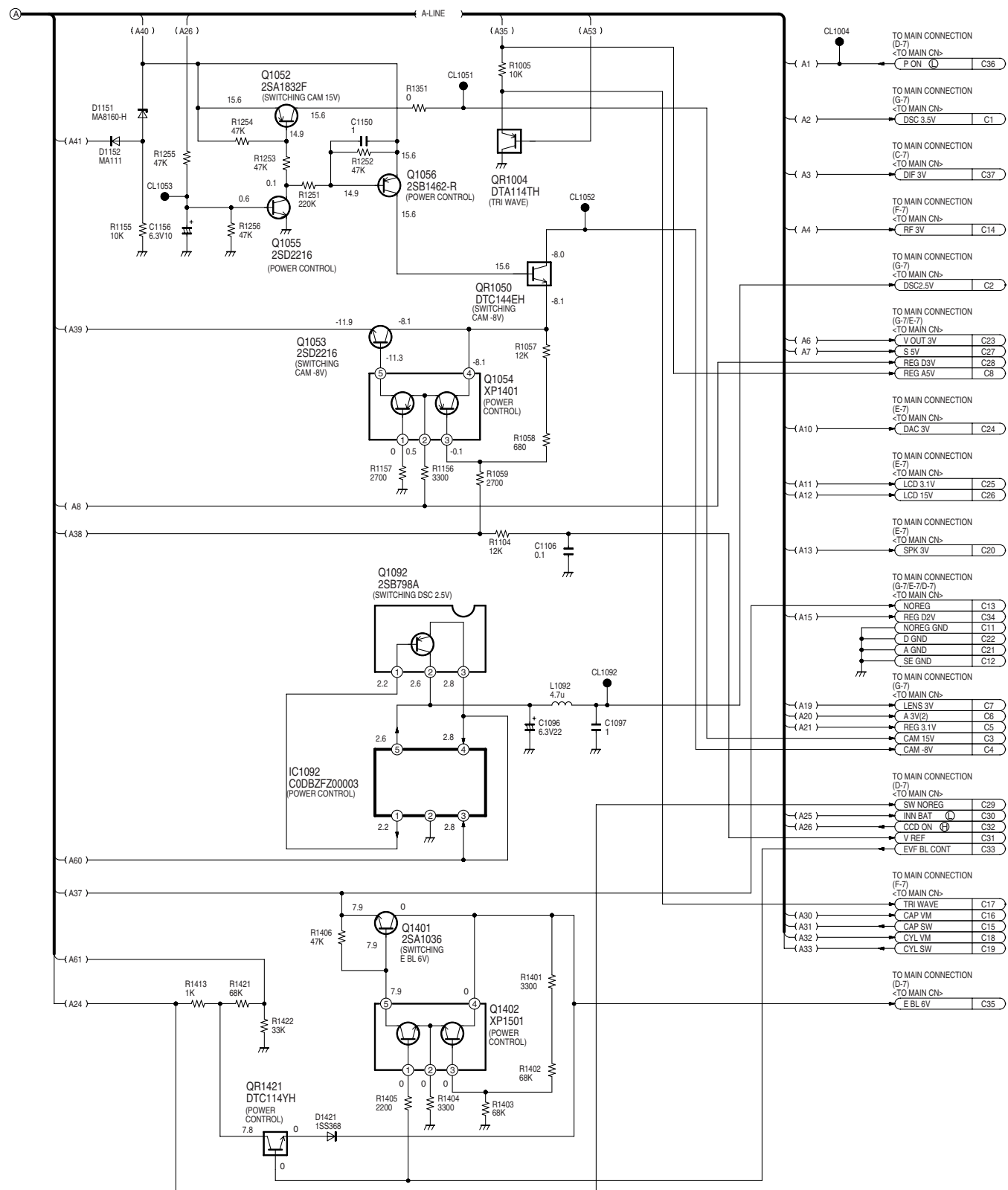


8.24. DRIVE SCHEMATIC DIAGRAM



8.25. POWER SCHEMATIC DIAGRAM



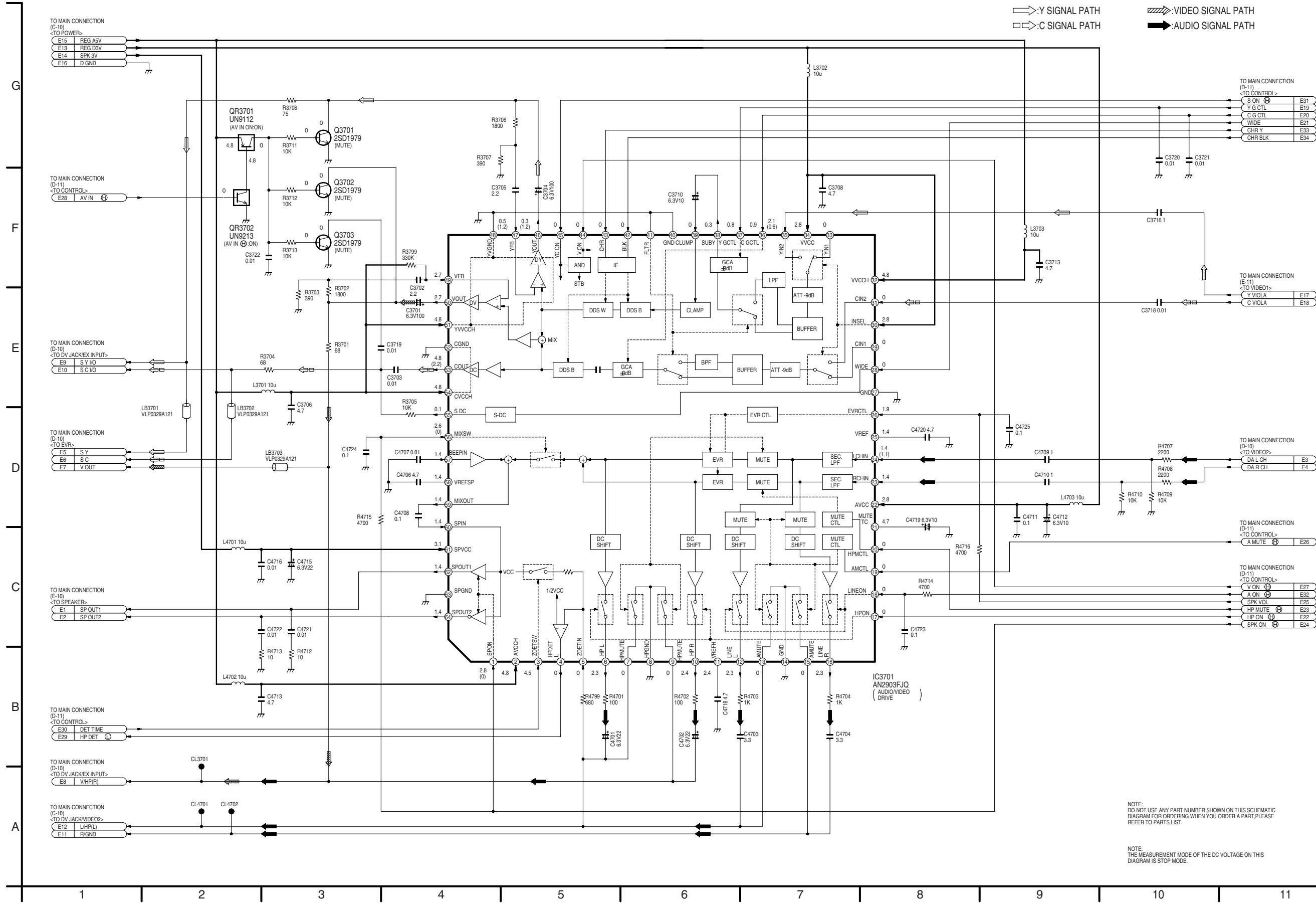


NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC
DIAGRAM FOR ORDERING WHEN YOU ORDER A PART, PLEASE
REFER TO PARTS LIST.

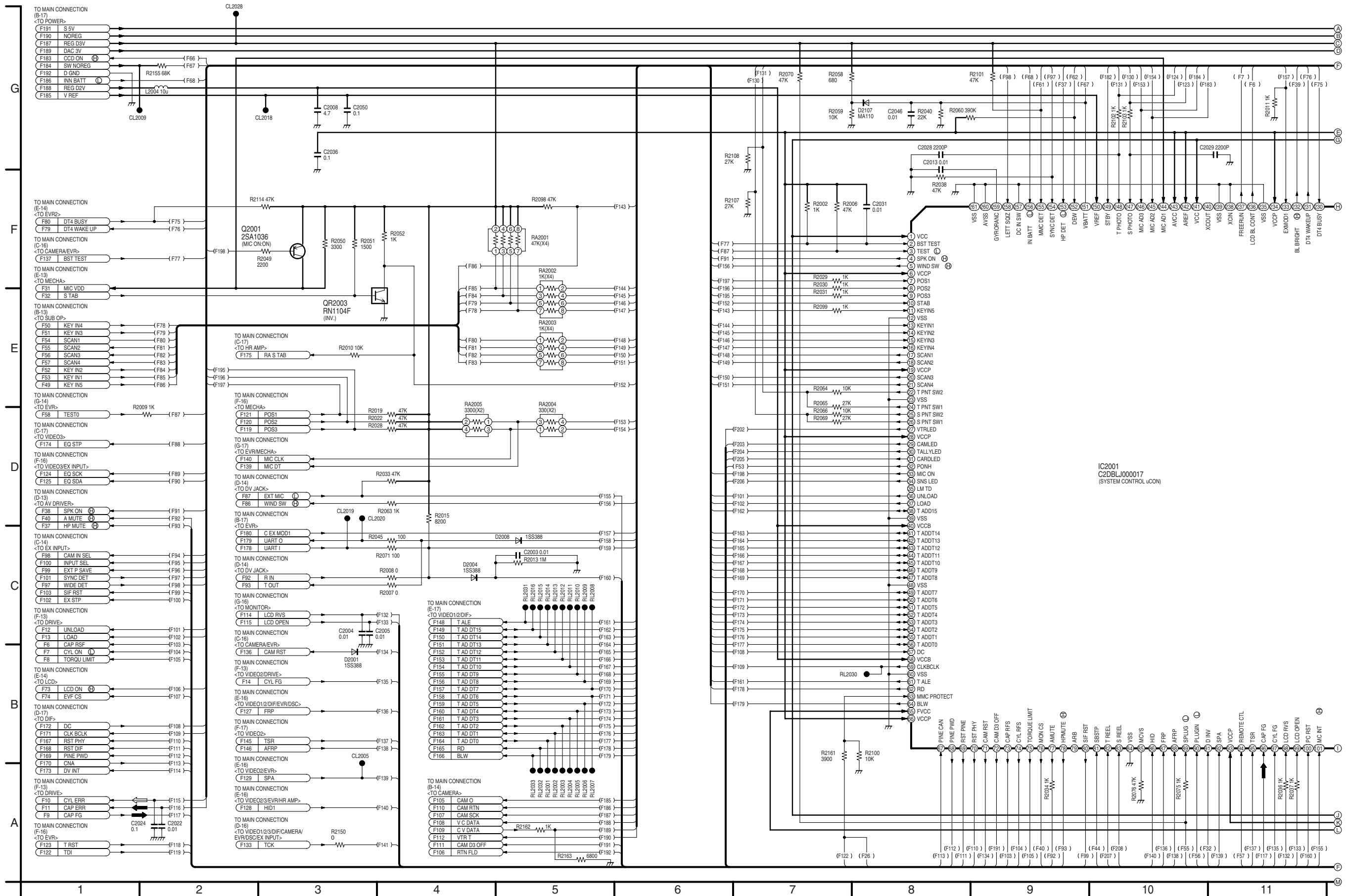
NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS
DIAGRAM IS STOP MODE.

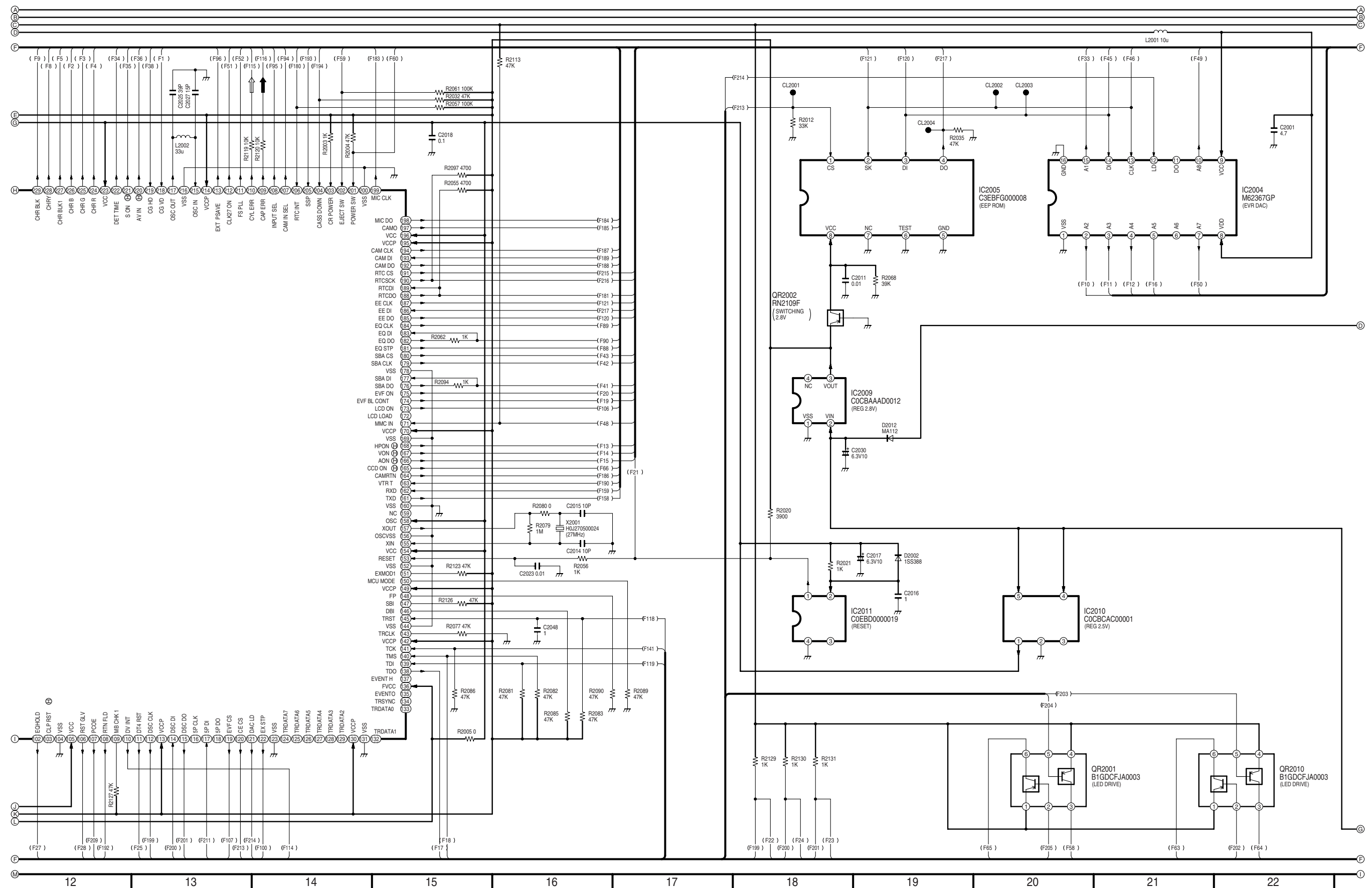
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK Δ HAVE THE
SPECIAL CHARACTERISTICS FOR SAFETY WHEN REPLACING
ANY OF THESE COMPONENTS ONLY THE SAME TYPE.

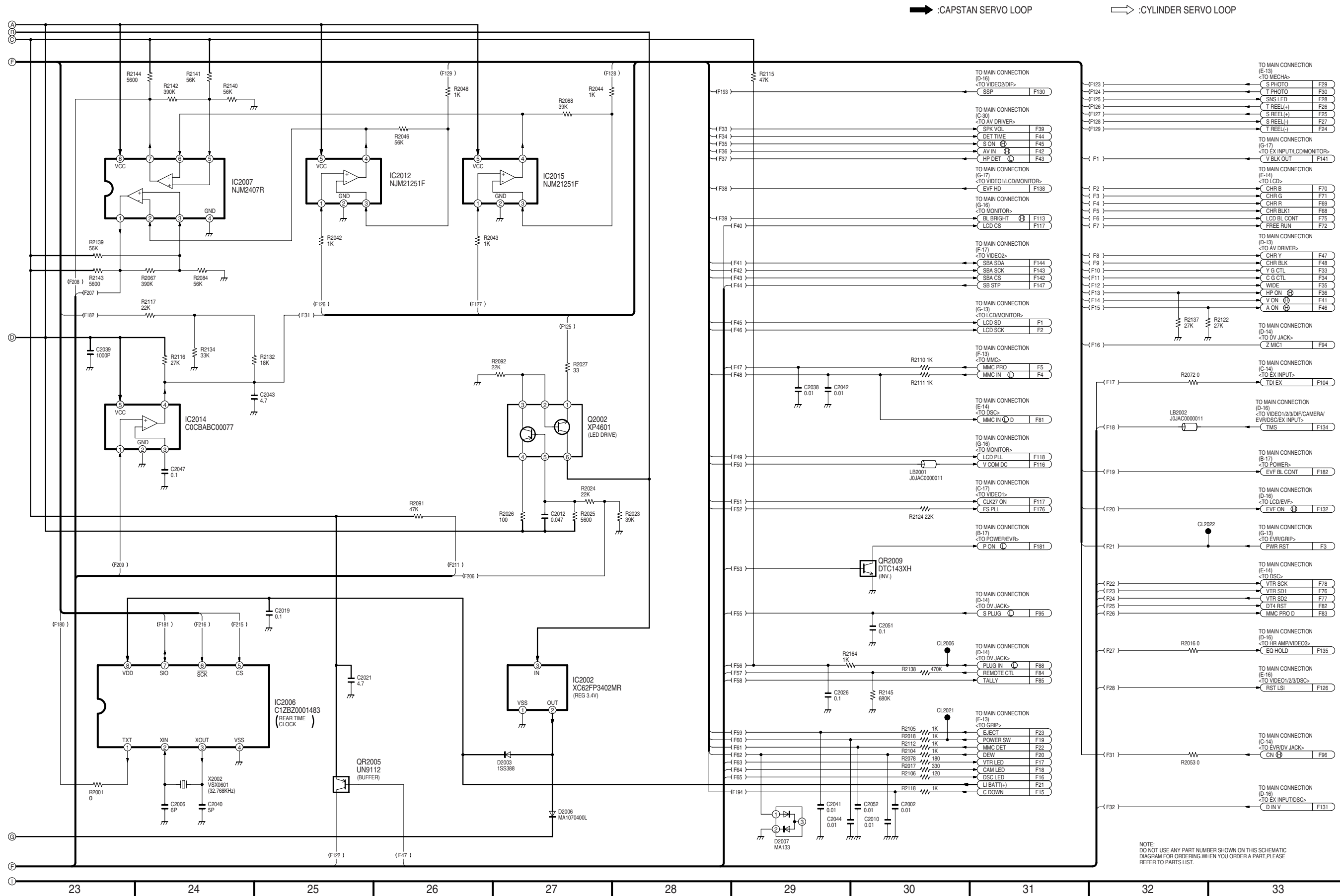
8.26. AV DRIVER SCHEMATIC DIAGRAM



8.27. CONTROL SCHEMATIC DIAGRAM









8.27.1. CONTROL I/O TABLE

IC2001 : CONTROL MICROCOMPUTER

Pin No.	Signal Name	I/O	Explanation	Pin No.	Signal Name	I/O	Explanation
1	VCC	–	Voltage	61	T ALE	O	ALE
2	BST TEST	I	Boudary Scan Test SW	62	RD	O	RD
3	TEST L	I	VTR Test Signal (H:Normal, L:Test Mode)	63	MMC PROTECT	I	CARD Protect
4	SPK ON (H)	O	Speaker ON/OFF	64	BLW	O	WS1
5	WIND SW (H)	O	Noise Silent Control	65	F VCC	–	Voltage
6	VCC P	I	Voltage	66	VCC P	–	Voltage
7	POS1	I	Mecha. Position SW	67	PINE CAN	I	Digital I/F Detect
8	POS2	I	Mecha. Position SW	68	PINE PED	O	PINE Power Down
9	POS3	I	Mecha. Position SW	69	RST PINE	O	PINE Reset
10	S TAB	I	Safety Tab SW	70	RST PHY	O	PHY Reset
11	KEY IN5	I	KEY Scan IN5	71	CAM RST	O	Camera Reset
12	VSS	–	GND	72	CAM D3 OFF	O	Camera 3V Voltage Control
13	KEY IN1	I	KEY Scan IN1	73	CAP RSF	O	Capstan ON
14	KEY IN2	I	KEY Scan IN2	74	CYL RFS	O	Cylinder ON
15	KEY IN3	I	KEY Scan IN3	75	TORQUE LIMIT	O	Torque Limit
16	KEY IN4	I	KEY Scan IN4	76	MON CS	O	Monitor Chip Select
17	SCAN1	O	KEY Scan OUT1	77	A MUTE	O	Audio Mute
18	SCAN2	O	KEY Scan OUT2	78	HP MUTE (H)	O	Headphone Mute
19	VCC P	–	Voltage	79	ARB	–	–
20	SCAN3	O	KEY Scan OUT3	80	SIF RST	O	SIF Reset
21	SCAN4	O	KEY Scan OUT4	81	SBSTP	I	QUE/REV Block Noise Silent Control
22	T PHT SW2	O	Tape Take-up Photo Sensor ADJ.	82	T REEL	I	Take-up Reel Pulse
23	VSS	–	GND	83	S REEL	I	Supply Reel Pulse
24	T PHT SW1	O	Tape Take-up Photo Sensor ADJ.	84	VSS	–	GND
25	S PHT SW2	O	Tape Supply Photo Sensor ADJ.	85	MCVS	–	GND
26	S PHT SW1	O	Tape Supply Photo Sensor ADJ.	86	HID	I	HSW
27	VTR LED	O	VTR LED	87	FRP	I	Frame Reference Pulse
28	VCC P	–	Voltage	88	A FRP	I	Frame Reference Pulse
29	CAM LED	O	CAMERA LED	89	S PLUG (L)	I	S Plug ON/OFF
30	TALLY LED	O	TALLY-LED	90	PLUG IN (L)	I	AV Terminal ON/OFF
31	CARD LED	O	Card Playback Mode LED	91	D INV	I	Clock (60Hz)
32	P ON (H)	O	BUS Voltage ON	92	SPA	I	ATF Sampling Pulse
33	MIC ON	O	MIC ON	93	VCC P	–	Voltage
34	SES LED	O	Tape Snsor LED	94	REMOTE CTL	I	Remote Ctl Pulse
35	LM TD	–	–	95	TSR	I	Track Start Reference
36	UNLOAD	O	Mecha. Unload	96	CAP FG	I	Capstan FG
37	LOAD	O	Mecha. Load	97	CYL FG	I	Cylinder FG
38	T ADD15	I/O	Address/Data	98	LCD RVS	I	LCD Reverse Detect
39	VSS	–	GND	99	LCD OPEN	I	LCD Open/Close Detect
40	VCC B	–	Voltage	100	PC RST	I	PC Reset Signal Detect
41	T ADD14	I/O	Address/Data	101	MC INT	I	EXT. Mic Select
42	T ADD13	I/O	Address/Data	102	EQ HOLD	O	Equalizer Hold
43	T ADD12	I/O	Address/Data	103	CLP RST (H)	–	–
44	T ADD11	I/O	Address/Data	104	VSS	–	GND
45	T ADD10	I/O	Address/Data	105	VCC	–	Voltage
46	T ADD9	I/O	Address/Data	106	RST GLV	O	LSI Reset
47	T ADD8	I/O	Address/Data	107	PCOE	O	RS232C Drive Output Enable
48	VSS	–	GND	108	RTN FLD	O	Field Detect
49	T ADD7	I/O	Address/Data	109	MB CHK 1	–	Micom BUS Timing
50	T ADD6	I/O	Address/Data	110	DV INT	I	Digital Interface
51	T ADD5	I/O	Address/Data	111	DT4 RST	O	DSC Chip Select
52	T ADD4	I/O	Address/Data	112	DSC CLK	O	DSC Serial Clock
53	T ADD3	I/O	Address/Data	113	VCC P	–	Voltage
54	T ADD2	I/O	Address/Data	114	DSC DI	I	DSC Serial Data
55	T ADD1	I/O	Address/Data	115	DSC DO	O	DSC Serial Data
56	T ADD0	I/O	Address/Data	116	5P CLK	O	5P Serial Clock
57	DC	I	READY	117	5P DI	I	5P Serial Data
58	VCC B	–	Voltage	118	5P DO	O	5P Serial Data
59	CLK BCLK	O	BCLK	119	EVF CS	O	EVF Chip Select
60	VSS	–	GND	120	CE CS	O	EEPROM Chip Select
				121	DAC LD	O	DAC Chip Select

Pin No.	Signal Name	I/O	Explanation	Pin No.	Signal Name	I/O	Explanation
122	EX STP	O	SIF Serial Communication Chip Select	181	EQ STP	O	DSC Handshake
123	VSS	–	GND	182	EQ DO	O	DSC Serial Data
124	TR DATA7	–	–	183	EQ DI	I	DSC Serial Data
125	TR DATA6	–	–	184	EQ CLK	O	DSC Serial Clock
126	TR DATA5	–	–	185	EE DO	O	EEPROM/DAC/LCD/EVF Data
127	TR DATA4	–	–	186	EE DI	I	EEPROM/DAC/LCD/EVF Data
128	TR DATA3	–	–	187	EE CLK	O	EEPROM/DAC/LCD/EVF Clock
129	TR DATA2	–	–	188	RTC DO	O	RTC Serial Data
130	VCC P	–	Voltage	189	RTC DI	I	RTC Serial Data
131	VSS	–	GND	190	RTC SCK	O	RTC Serial Clock
132	TR DATA1	–	–	191	RTC CS	O	RTC Handshake
133	TR DATA0	–	–	192	CAM DO	O	Camera Serial Data
134	TR SYNC	–	–	193	CAM DI	–	–
135	EVENTO	–	–	194	CAM CLK	O	Camera Serial Clock
136	F VCC	–	Voltage	195	VCC P	–	Voltage
137	EVENT (H)	–	–	196	VCC	–	Voltage
138	TDO	O	TDO	197	CAMO	O	VTR Data
139	TDI	I	TDI	198	MIC DO	O	MIC Serial Data
140	TMS	I	TMS	199	MIC CLK	O	MIC Serial Clock
141	TCK	I	TCK	200	VSS	–	GND
142	VCC P	–	Voltage	201	POWER SW	I	POWER ON SW
143	TR CLK	–	–	202	EJECT SW	I	EJECT SW ON
144	VSS	–	GND	203	CR POWER	I	CR POWER ON
145	T RST	I	T Reset	204	CASS DOWN	I	Cassette Down Detect
146	DBI	I	DBI	205	SSP	I	SSP
147	SBI	–	–	206	RTC INT	I	RTC Interface
148	FP	I	FP	207	CAM IN SEL	O	Camera Input Select
149	VCC P		Voltage	208	INPUT SEL	O	Input Serect
150	MCU MODE	I	MCU MODE=0	209	CAP ERR	O	Capstan Error
151	EX MOD1	–	–	210	CYL ERR	O	Cylinder Error
152	VSS	–	GND	211	FS PLL	O	ATF ERR for Linear Arrangement
153	RESET	I	Reset Signal	212	CLK27 ON	O	Clock (27MHz) ON/OFF
154	VCC	–	Voltage	213	EXT P SAVE	O	SIF Power Save
155	X IN	I	Clock (27MHz)	214	VCC P	–	Voltage
156	OSC VSS	–	GND	215	OSC IN	I	Clock (8MHz)
157	X OUT	O	Clock (27MHz)	216	VSS	–	GND
158	OSC VSS	–	GND	217	OSC OUT	O	Clock (8MHz)
159	NC	–	–	218	CG VD	I	V SYNC
160	VSS	–	GND	219	CG HD	I	H SYNC
161	TXD	O	RS232C Data	220	AV IN (H)	O	AV IN ON/OFF
162	RXD	I	RS232C Data	221	S ON (H)	O	S Terminal ON/OFF
163	VTR T	I	Sync Serial Communication Enable Signal	222	DET TIME	I	AV Detect
164	CAM RTN	O	Camera Clock Reference Signal	223	VCC	–	Voltage
165	CCD ON (H)	O	CCD ON	224	CHR R	O	Character Generation R
166	A ON (H)	O	Audio Line ON/OFF	225	CHR G	O	Character Generation G
167	V ON (H)	O	Video Line ON/OFF	226	CHR B	O	Character Generation B
168	HP ON (H)	O	Headphone Line ON/OFF	227	CHR BLK1	O	Character Generation Blanking
169	VSS	–	GND	228	CHR Y	O	Character Generation Y
170	VCC P	–	Voltage	229	CHR BLK1	O	Character Generation Blanking
171	MMC IN	I	Card IN Detect	230	DT4 BUSY	I	DSC Busy
172	LCD LOAD	–	–	231	DT4 WAKEUP	O	DSC Wakeup
173	LCD ON	O	LCD ON/OFF	232	BL BRIGHT (H)	–	–
174	EVF BL CONT	O	EVF Back Light Control	233	EX MOD1	I	EVR Mode
175	EVF ON	O	EVF ON/OFF	234	VCC P	–	Voltage
176	SBA DO	O	Audio Serial Data	235	VSS	–	GND
177	SBA DI	I	Audio Serial Data	236	LCD BL CONT	–	–
178	VSS	–	GND	237	FREERUN	O	Freerun
179	SBA CLK	O	Audio Serial Clock	238	XC IN	–	–
180	SBA CS	O	Audio Serial Chip Select	239	VSS	–	GND
				240	XC OUT	–	–
				241	VCC	I	Voltage

Pin No.	Signal Name	I/O	Explanation	Pin No.	Signal Name	I/O	Explanation
242	A REF	I	Voltage	252	DEW	I	DEW Sensor
243	A VCC	I	Voltage	253	HP DET 	I	Headphone ON/OFF
244	MIC AD1	I	Contact ID Detect	254	SYNC DET	I	SYNC Detect
245	MIC AD2	I	Contact ID Detect	255	MMC DET	I	MMC Card Detect
246	MIC AD3	I	Contact ID Detect	256	IN BATT 	I	Battery Detect
247	S PHOTO	I	Tape Supply Photo Sensor Detect	257	DC IN SW	–	AC Adaptor Detect
248	T PHOTO	I	Tape Take-up Photo Sensor Detect	258	LETT SQIZ	I	Screen Size
249	STBY	I	RS232C Connection Detect	259	GYRO RANC	–	–
250	V REF	I	Battery Reference Voltage Detect	260	A VSS	–	GND
251	V BATT	–	Battery Voltage Detect	261	VSS	–	GND

8.27.2. CONTROL DC VOLTAGE CHART (SP MODE)

ICs DC VOLTAGE CHART (SP MODE)

Ref. No.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.5	2.9	2.8	0	2.8	2.8	2.8	2.8	0	0.1	2.8	0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PLAY	2.5	2.9	2.8	0	2.8	2.8	2.8	2.8	0	0.1	2.8	0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
REC	2.5	2.9	2.8	2.8	2.8	2.8	2.8	2.8	0	0.1	2.8	0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
F.F.	2.5	2.9	2.8	0	2.8	2.8	2.8	2.8	0	0.1	2.8	0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
REW	2.5	2.9	2.8	0	2.8	2.8	0	0	2.8	0.1	2.8	0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8

Ref. No.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.8	0	0	0	0	0	2.8	2.8	0	2.8	2.8	2.7	2.8	2.8	-	0	0	0	0	1.8
PLAY	2.8	0	0	0	0	0	0	2.8	2.8	2.8	2.8	2.7	2.8	2.8	-	0	0	0	0	1.8
REC	2.8	0	0	0	0	0	2.8	2.8	0	0	2.8	2.7	2.8	2.8	-	0	0	0	0	1.8
F.F.	2.8	0	0	0	0	0	0	2.8	2.8	2.8	2.8	2.7	2.8	2.8	-	0	0	0	0	1.8
REW	2.8	0	0	0	0	0	0	2.8	2.8	2.8	2.8	2.7	2.8	2.8	-	0	0	0	0	1.8

Ref. No.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	1.8	0	0
PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	1.8	0	0
REC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	1.8	0	0
F.F.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	1.8	0	0
REW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	1.8	0	0

Ref. No.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	2.8	2.8	0	0	2.5	2.8	-	-	-	-	2.8	-	1.4	0	0.2	2.8	0	0	-	0
PLAY	2.8	2.8	0	0	2.5	2.8	-	-	-	-	2.8	-	0	0	0	2.8	0	0	-	0
REC	2.8	2.8	0	0	2.5	2.8	-	-	-	-	2.8	-	0	0	0.2	2.8	0	0	-	0
F.F.	2.8	2.8	0	0	2.5	2.8	-	-	-	-	2.8	-	0	0	2.8	2.8	0	0	-	0
REW	2.8	2.8	0	0	2.5	2.8	-	-	-	-	2.8	-	2.8	0	0	2.8	0	0	-	0

Ref. No.	IC2001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	2.8	2.8	0	0	2.8	1.4	1.4	-	0	0	-	0	2.8	2.5	2.8	1.4	1.4	0	0	2.7
PLAY	2.8	2.4	2.4	0	1.4	1.4	1.4	-	0	0	-	0	2.8	2.5	1.4	1.4	1.4	0	0	2.7
REC	2.8	1.4	1.4	0	0	1.4	1.4	-	0	0	-	0	2.8	2.5	0	1.4	1.4	0	0	2.7
F.F.	2.8	1.4	1.4	0	1.4	1.4	1.4	-	0	0	-	0	2.8	2.5	1.4	1.4	1.4	0	0	2.7
REW	2.8	1.4	1.4	0	1.4	1.4	1.4	-	0	0	-	0	2.8	2.5	1.4	1.4	1.4	0	0	2.7

Ref. No.	IC2001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	0	-	0	2.5	2.8	0	-	2.8	0	0	2.8	2.8	1.9	1.9	-	2.2	-	0	0
PLAY	0	0	-	0	2.5	2.8	0	-	2.8	0	0	2.8	2.8	1.9	1.9	-	2.2	-	0	0
REC	0	0	-	0	2.5	2.8	0	-	2.8	0	0	2.8	2.8	1.9	1.9	-	2.4	-	0	0
F.F.	0	0	-	0	2.5	2.8	0	-	2.8	0	0	2.8	2.8	1.9	1.9	-	2.6	-	0	0
REW	0	0	-	0	2.5	2.8	0	-	2.8	0	0	2.8	2.8	1.9	1.9	-	2.1	-	0	0

Ref. No.	IC2001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	0	-	0	-	-	-	-	-	-	2.8	0	-	-	-	-	2.5	-	1.9	1.9	0
PLAY	0	-	0	-	-	-	-	-	-	2.8	0	-	-	-	-	2.5	-	1.9	1.9	0
REC	0	-	0	-	-	-	-	-	-	2.8	0	-	-	-	-	2.5	-	1.9	1.9	0
F.F.	0	-	0	-	-	-	-	-	-	2.8	0	-	-	-	-	2.5	-	1.9	1.9	0
REW	0	-	0	-	-	-	-	-	-	2.8	0	-	-	-	-	2.5	-	1.9	1.9	0

Ref. No.	IC2001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
STOP	0	2.8	-	-	2.8	2.8	0	2.8	2.8	0	2.8	0	2.8	2.5	1.4	0	1.4	0	-	0
PLAY	0	2.8	-	-	0	2.8	0	2.8	2.8	0	2.8	0	2.8	2.5	1.4	0	1.4	0	-	0
REC	0	2.8	-	-	2.8	2.8	0	2.8	2.8	0	2.8	0	2.8	2.5	1.4	0	1.4	0	-	0
F.F.	0	2.8	-	-	0	2.8	0	2.8	2.8	0	2.8	0	2.8	2.5	1.4	0	1.4	0	-	0
REW	0	2.8	-	-	0	2.8	0	2.8	2.8	0	2.8	0	2.8	2.5	1.4	0	1.4	0	-	0

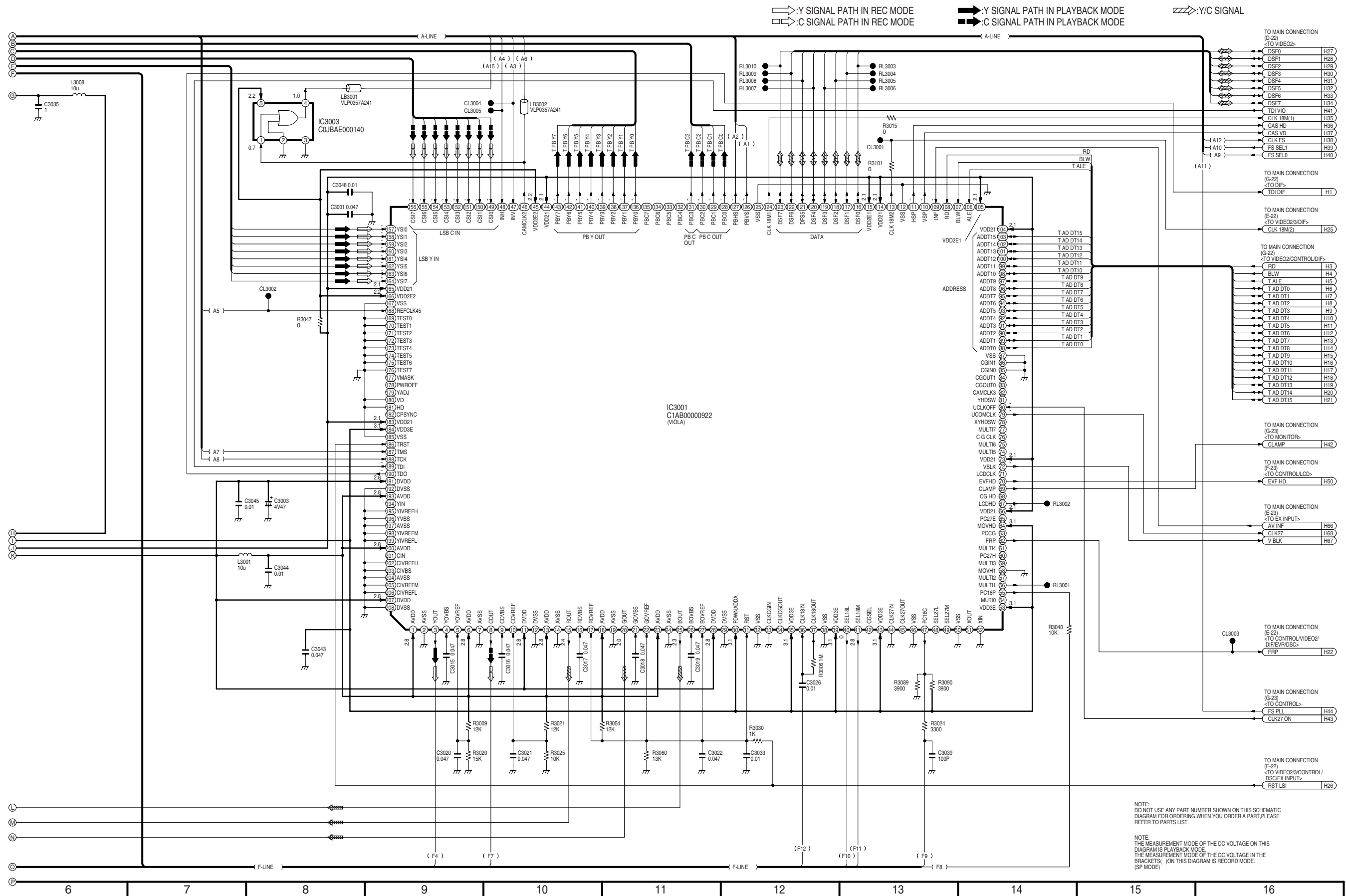
Ref. No.	IC2001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
STOP	2.8	2.8	-	-	2.8	2.8	0	2.8	0	2.8	0	-	2.8	2.8	2.8	2.8	2.8	0	0	0
PLAY	2.8	2.0	-	-	0	2.8	0	2.8	0	2.8	0	-	2.8	2.8	2.8	2.8	2.8	0	0	0
REC	2.8	2.8	-	-	2.8	2.8	0	2.8	0	2.8	0	-	2.8	2.8	2.8	2.8	2.8	0	0	0
F.F.	2.8	2.0	-	-	0	2.8	0	2.8	0	2.8	0	-	2.8	2.8	2.8	2.8	2.8	0	0	0
REW	2.8	2.0	-	-	0	2.8	0	2.8	0	2.8	0	-	2.8	2.8	2.8	2.8	2.8	0	0	0

Ref. No.	IC2001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
STOP	0	0	0	2.7	2.8	0.5	2.8	2.8	2.8	2.8	1.9	-	-	-	2.8	2.5	-	2.8	2.8	0
PLAY	0	0	0	2.7	2.8	0.8	2.8	2.8	2.8	2.8	1.9	-	-	-	2.8	2.5	-	2.8	2.8	0
REC	0	0	0	2.7	2.8	1.2	2.8	2.8	2.8	2.8	1.8	-	-	-	2.8	2.5	-	2.8	2.8	0
F.F.	0	0	0	2.7	2.8	1.2	2.8	2.8	2.8	2.8	1.8	-	-	-	2.8	2.5	-	2.8	2.8	0
REW	0	0	0	2.7	2.8	1.2	2.8	2.8	2.8	2.8	1.9	-	-	-	2.8	2.5	-	2.8	2.8	0

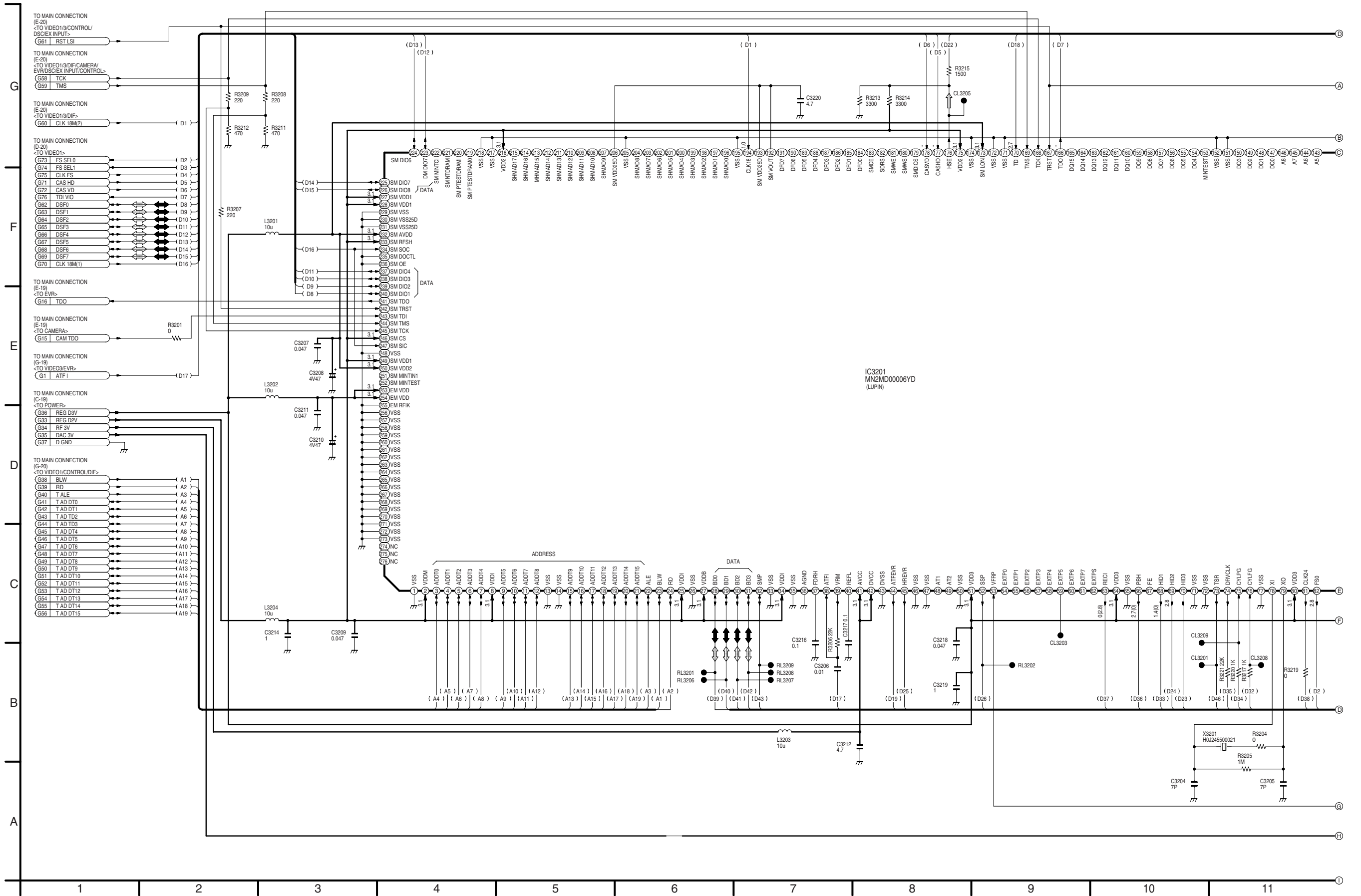
Ref. No.	IC2001																							
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220				
STOP	2.8	2.8	0	0	0	1.4	2.8	1.4	1.5	0	0	-	0	2.8	2.8	0	2.8	1.4	1.4	0				
PLAY	2.8	2.8	0	0	0	1.4	2.8	1.2	1.5	0	0	-	0	2.8	2.8	0	2.8	1.4	1.4	0				
REC	2.8	2.8	0	0	0	1.4	2.8	1.2	1.5	0	0	-	0	2.8	2.8	0	2.8	1.4	1.4	0				
F.F.	2.8	2.8	0	0	0	1.4	2.8	1.2	1.5	0	0	-	0	2.8	2.8	0	2.8	1.4	1.4	0				
REW	2.8	2.8	0	0	0	1.4	2.8	1.2	1.5	0	0	-	0	2.8	2.8	0	2.8	1.4	1.4	0				
Ref. No.	IC2001																							
MODE	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240				
STOP	0	4.5	2.5	0	0	0	2.8	0	0	0	2.8	2.8	2.8	2.8	0	2.8	0	-	0	-				
PLAY	0	4.5	2.5	0	0	0	2.8	0	0	0	2.8	2.8	2.8	2.8	0	2.8	0	-	0	-				
REC	0	4.5	2.5	0	0	0	2.8	0	0	0	2.8	2.8	2.8	2.8	0	2.8	0	-	0	-				
F.F.	0	4.5	2.5	0	0	0	2.8	0	0	0	2.8	2.8	2.8	2.8	0	2.8	0	-	0	-				
REW	0	4.5	2.5	0	0	0	2.8	0	0	0	2.8	2.8	2.8	2.8	0	2.8	0	-	0	-				
Ref. No.	IC2001																							
MODE	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260				
STOP	2.5	-	2.8	2.8	0	0	0	0	0.1	2.8	2.8	2.8	0	2.8	2.8	0	-	0	0	0				
PLAY	2.5	-	2.8	2.8	0	0	0	0	0.1	2.8	2.8	2.8	0	2.8	2.8	0	-	0	0	0				
REC	2.5	-	2.8	2.8	0	0	0	0	0.1	2.8	2.8	2.8	0	2.8	2.8	0	-	0	0	0				
F.F.	2.5	-	2.8	2.8	0	0	0	0	0.1	2.8	2.8	2.8	0	2.8	2.8	0	-	0	0	0				
REW	2.5	-	2.8	2.8	0	0	0	0	0.1	2.8	2.8	2.8	0	2.8	2.8	0	-	0	0	0				
Ref. No.	IC2001																							
MODE	261																							
STOP	0																							
PLAY	0																							
REC	0																							
F.F.	0																							
REW	0																							
Ref. No.	IC2002									IC2004														
MODE	1	2	3						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
STOP	0	7.9	3.6						0	0.8	1.0	0	0	-	1.6	2.8	2.8	0.9	-	0	2.8	1.0	1.9	0
PLAY	0	7.9	3.6						0	0.8	1.0	0	0	-	1.6	2.8	2.8	0.9	-	0	2.8	1.1	1.6	0
REC	0	7.9	3.6						0	0.8	1.0	0	0	-	1.6	2.8	2.8	0.9	-	0	2.8	1.1	1.9	0
F.F.	0	7.7	3.6						0	0	0	0	0	-	1.6	2.8	2.8	0.9	-	0	2.8	1.0	1.6	0
REW	0	7.7	3.6						0	0	0	0	0	-	1.6	2.8	2.8	0.9	-	0	2.8	1.0	1.6	0
Ref. No.	IC2005									IC2006														
MODE	1	2	3	4	5	6	7	8																
STOP	2.7	2.8	1.0	0	0	0	0	2.8																
PLAY	2.7	2.8	1.0	0	0	0	0	2.8																
REC	2.7	2.8	1.1	0	0	0	0	2.8																
F.F.	2.7	2.8	1.1	0	0	0	0	2.8																
REW	2.7	2.8	1.1	0	0	0	0	2.8																
Ref. No.	IC2007									IC2009														
MODE	1	2	3	4	5	6	7	8																
STOP	0	3.5	1.3	0	1.5	0.3	2.8	4.7																
PLAY	2.5	3.2	1.4	0	1.4	3.0	2.2	4.7																
REC	2.6	3.6	1.4	0	1.4	3.0	2.1	4.7																
F.F.	1.3	2.0	1.4	0	1.4	1.9	1.4	4.7																
REW	1.3	2.0	1.4	0	1.5	1.9	1.4	4.7																
Ref. No.	IC2011									IC2012														
MODE	1	2	3	4						1	2	3	4	5										
STOP	2.8	2.5	-	0						1.4	0	1.4	3.5	4.7										
PLAY	2.8	2.5	-	0						1.4	0	1.4	3.4	4.7										
REC	2.8	2.5	-	0						1.4	0	1.4	3.3	4.7										
F.F.	2.8	2.5	-	0						1.4	0	1.4	2.0	4.7										
REW	2.8	2.5	-	0						1.4	0	1.4	2.0	4.7										
Ref. No.	IC2014									IC2015														
MODE	1	2	3	4	5					1	2	3	4	5										
STOP	0	0	0	3.0	4.7					1.4	0	1.4	0.3	4.7										
PLAY	0	0	0	3.0	4.7					1.4	0	1.4	3.1	4.7										
REC	0	0	0	2.9	4.7					1.4	0	1.4	3.0	4.7										
F.F.	0	0	0	3.0	4.7					1.4	0	1.4	1.9	4.7										
REW	0	0	0	3.0	4.7					1.4	0	1.4	1.9	4.7										

TRs DC VOLTAGE CHART (SP MODE)

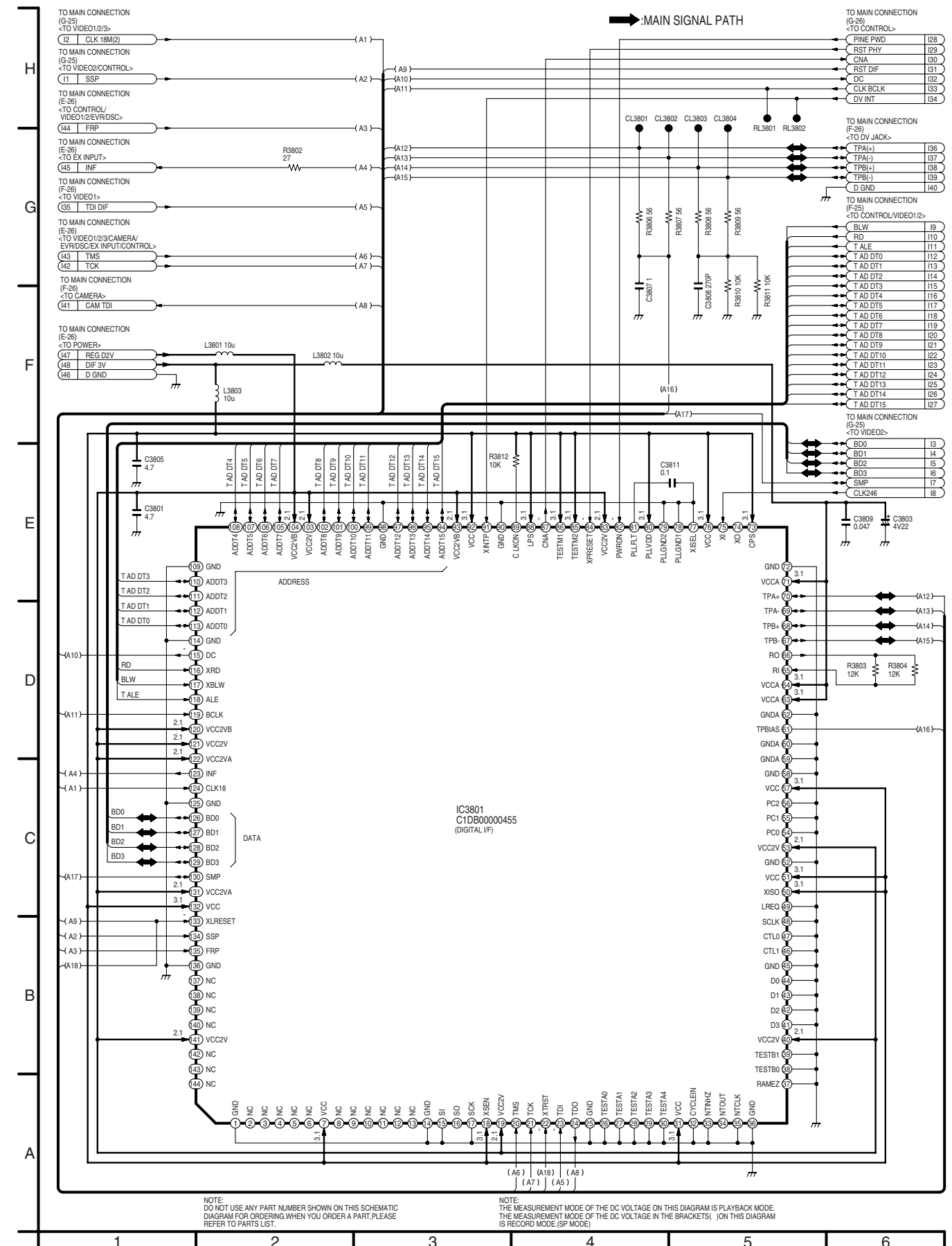
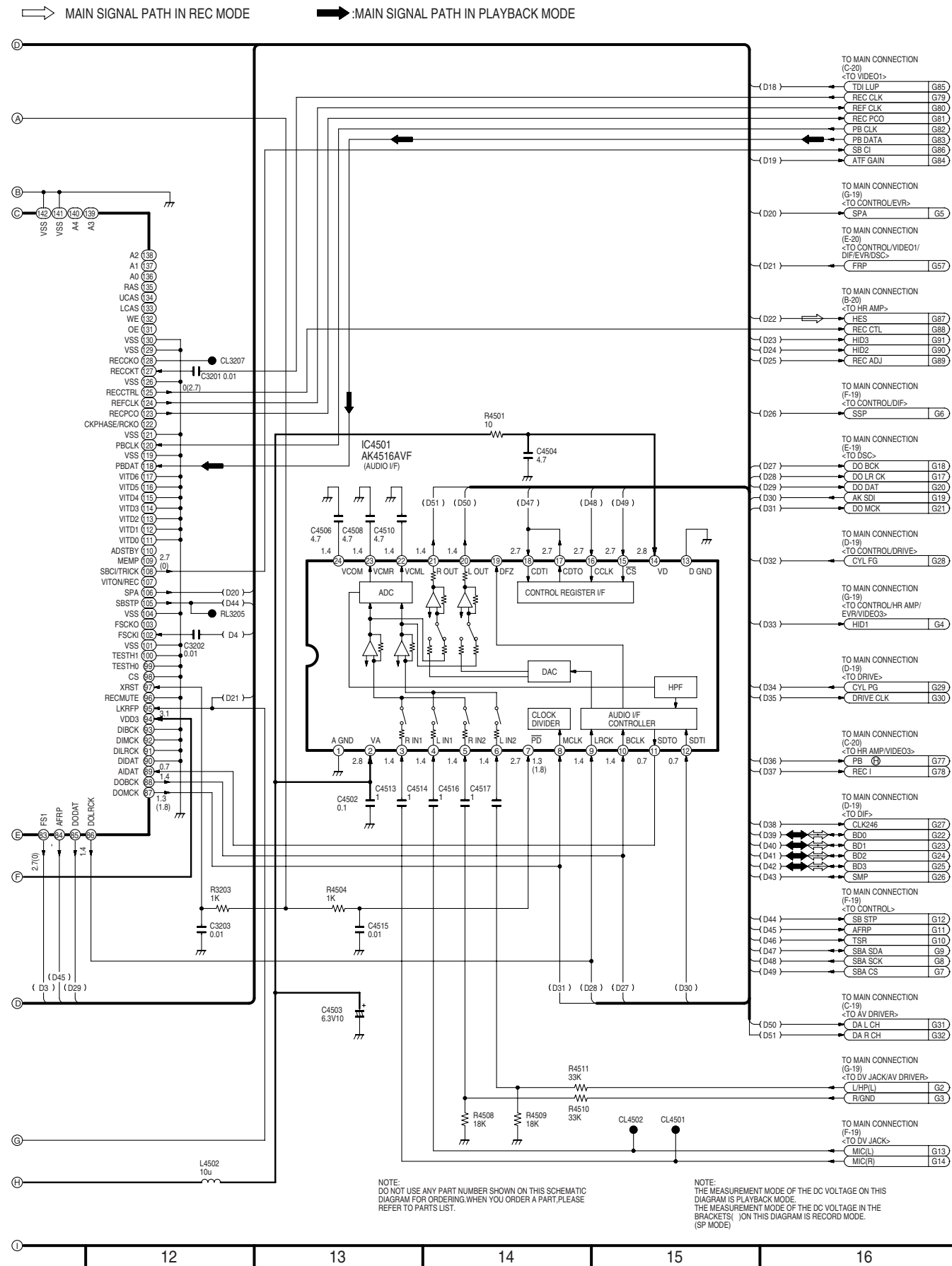
Ref. No. MODE	Q2001			Q2002						QR2001						QR2002				
	E	C	B	1	2	3	4	5	6	1	2	3	4	5	6	4	5	6		
STOP	2.8	2.8	2.8	0.1	0	0	4.7	4.3	7.9	2.8	2.8	0	2.8	2.8	0	2.8	2.8	0		
PLAY	2.8	2.8	2.8	0.1	0	0	4.7	4.3	7.9	2.8	2.8	0	2.8	2.8	0	2.8	2.8	0		
REC	2.8	2.8	2.8	0.2	0	0	4.7	4.3	7.9	2.8	2.8	2.8	2.8	0	0	2.8	2.8	0		
F.F.	2.8	2.8	2.8	0.1	0	0	4.7	4.3	7.7	2.8	2.8	0	2.8	2.8	0	2.8	2.8	0		
REW	2.8	2.8	2.8	0.1	0	0	4.7	4.3	7.7	2.8	2.8	0	2.8	2.8	0	2.8	2.8	0		
Ref. No. MODE	QR2003			QR2005			QR2009			QR2010										
	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6					
STOP	0	0.1	2.8	2.8	0	2.8	0	0	2.7	2.8	2.8	2.8	2.8	0	0					
PLAY	0	0.1	2.8	2.8	0	2.8	0	0	2.7	2.8	0	0	2.8	2.8	2.8					
REC	0	0.1	2.8	2.8	0	2.8	0	0	2.7	2.8	2.8	2.8	2.8	0	0					
F.F.	0	0.1	2.7	2.8	0	2.8	0	0	2.7	2.8	0	0	2.8	2.8	2.8					
REW	0	0.1	2.7	2.8	0	2.8	0	0	2.7	2.8	0	0	2.8	2.8	2.8					



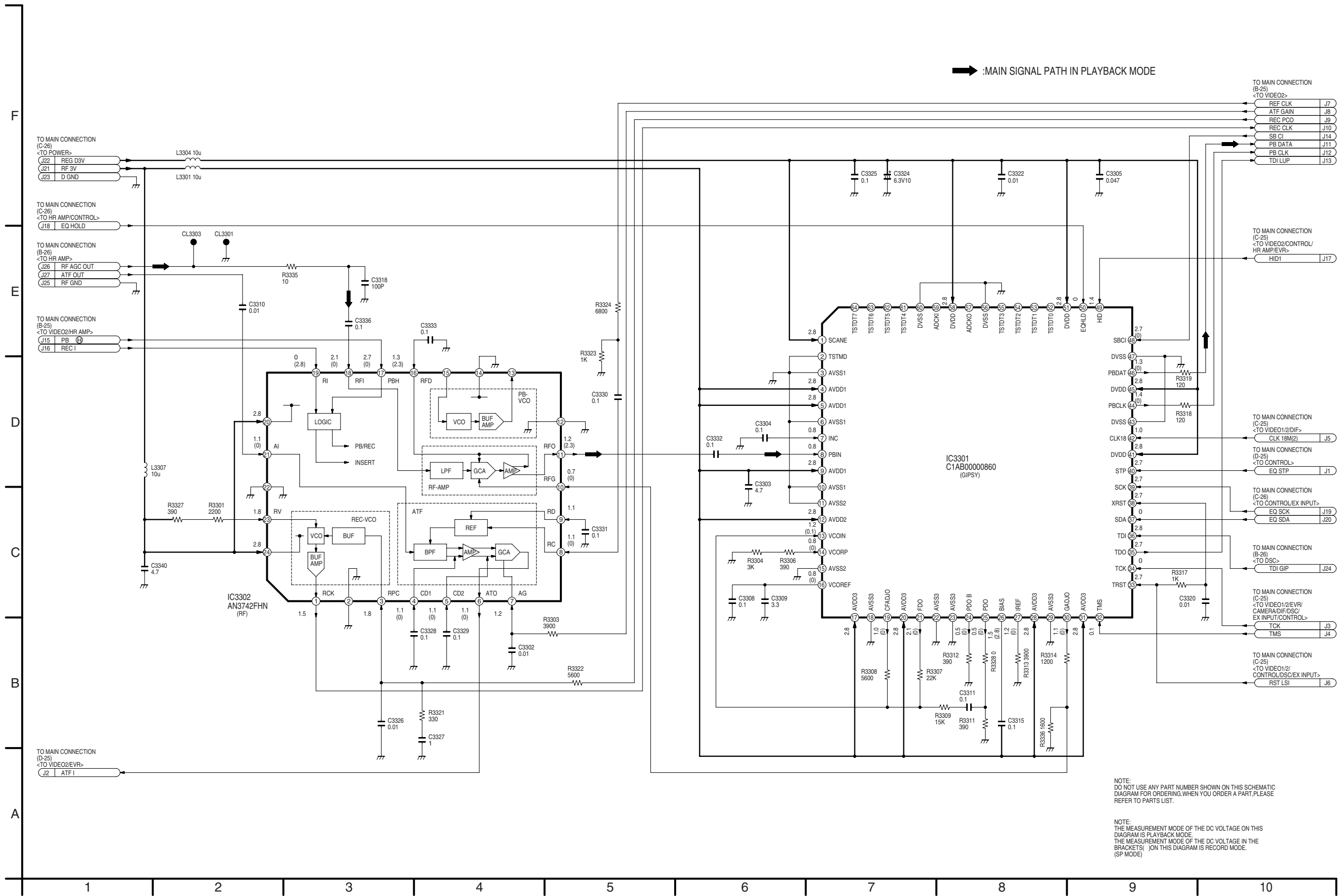
8.29. VIDEO 2 SCHEMATIC DIAGRAM



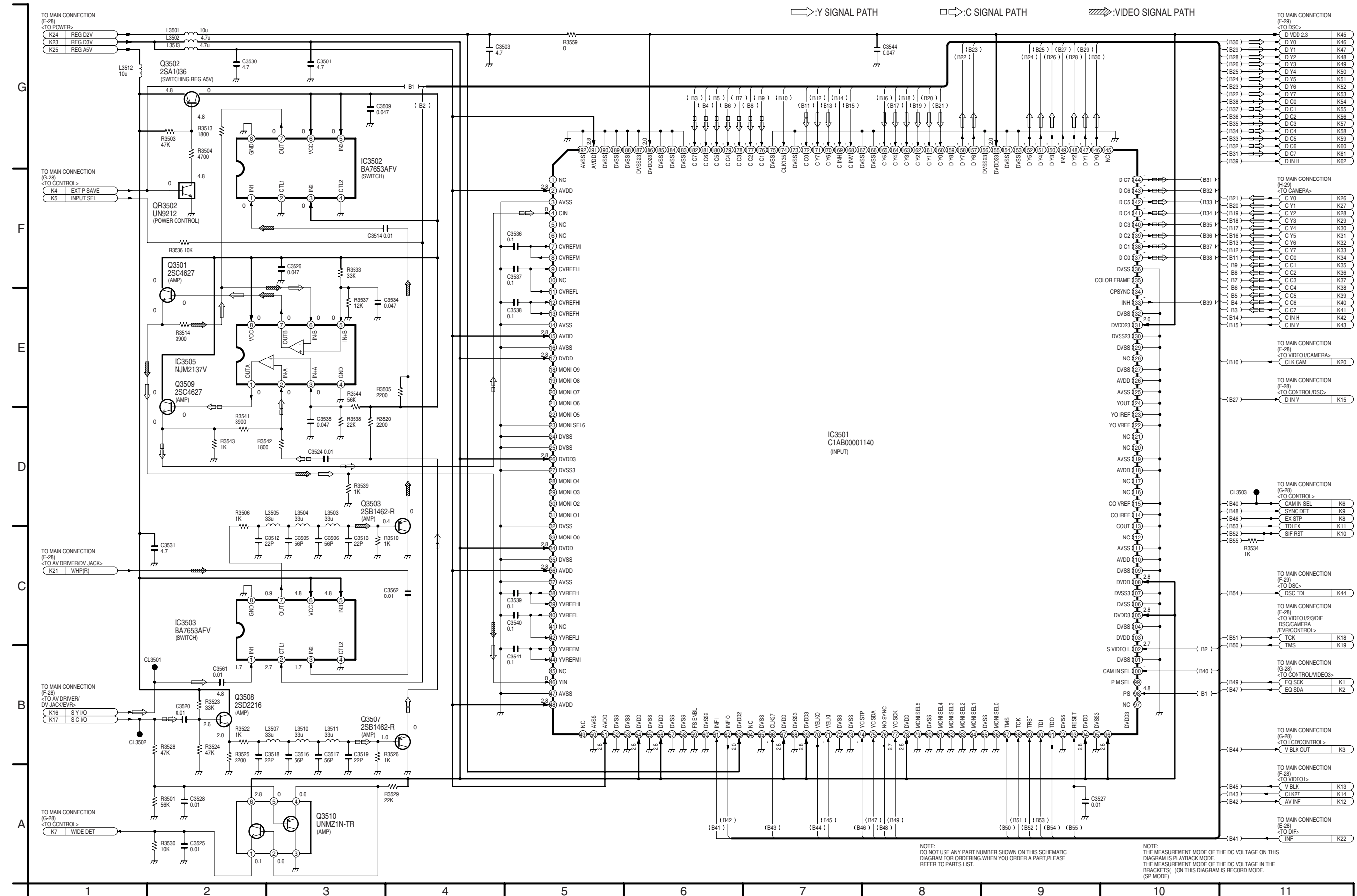
8.30. DIGITAL INTERFACE SCHEMATIC DIAGRAM



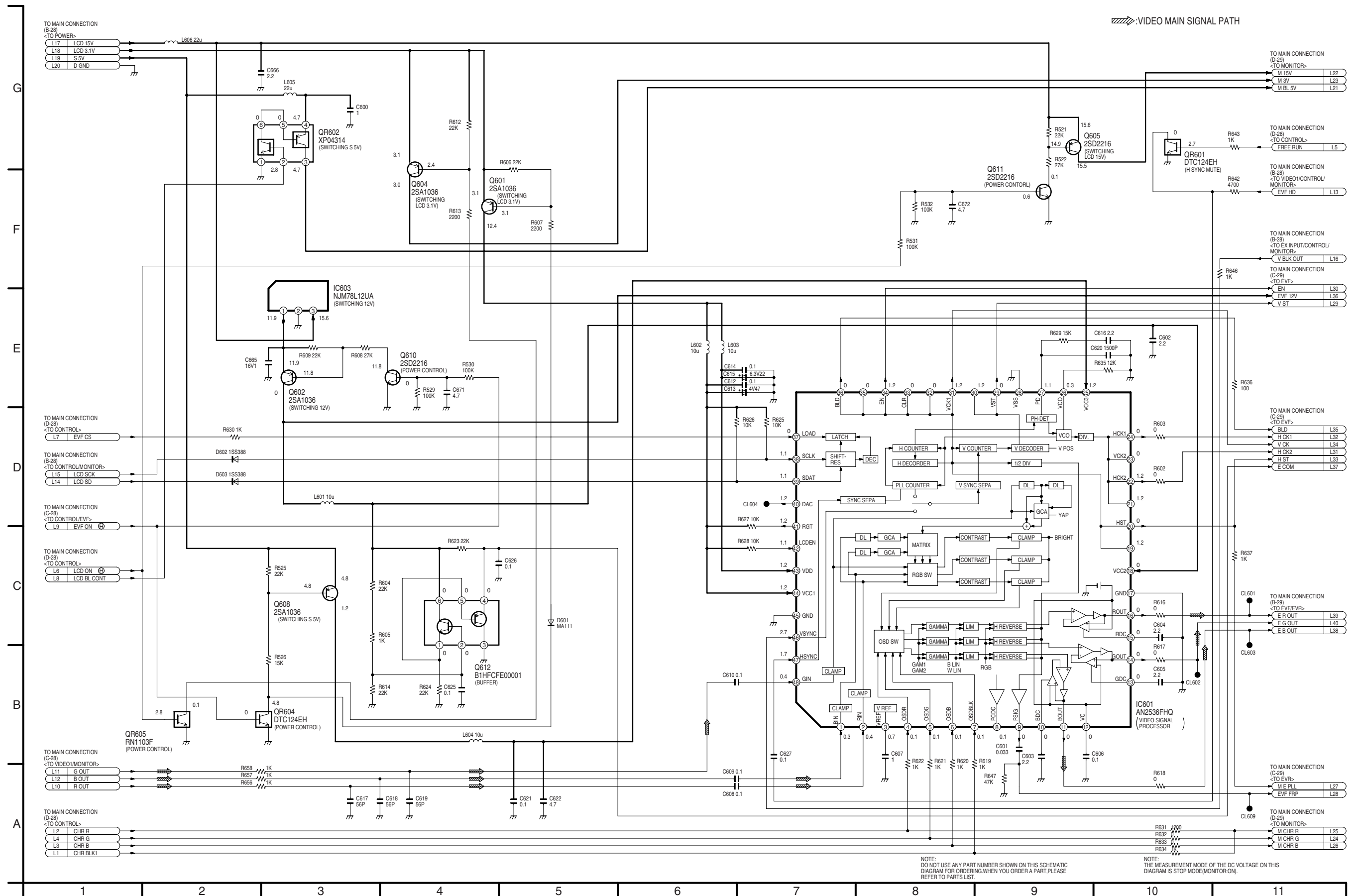
8.31. VIDEO 3 SCHEMATIC DIAGRAM



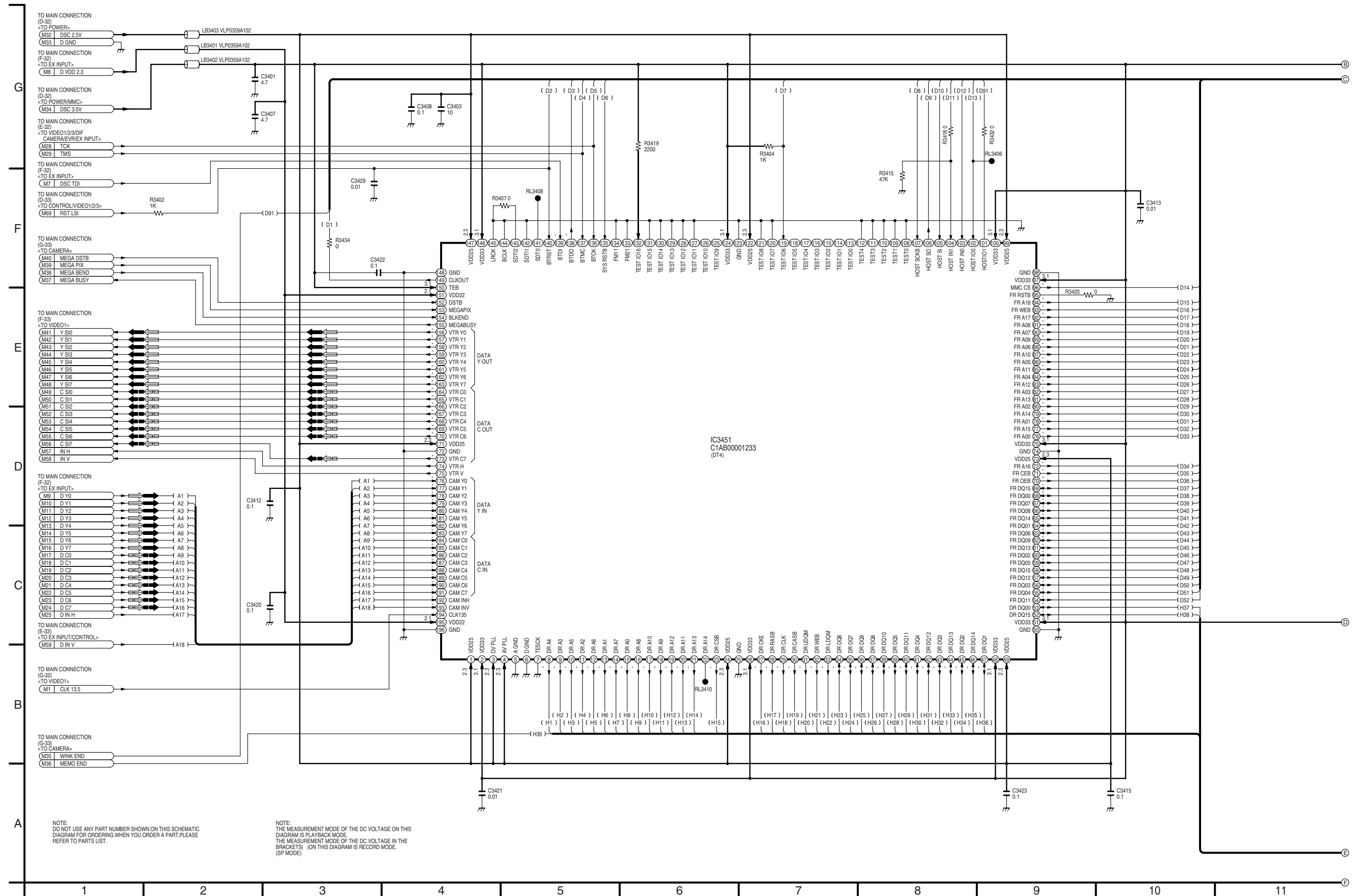
8.32. EX INPUT SCHEMATIC DIAGRAM

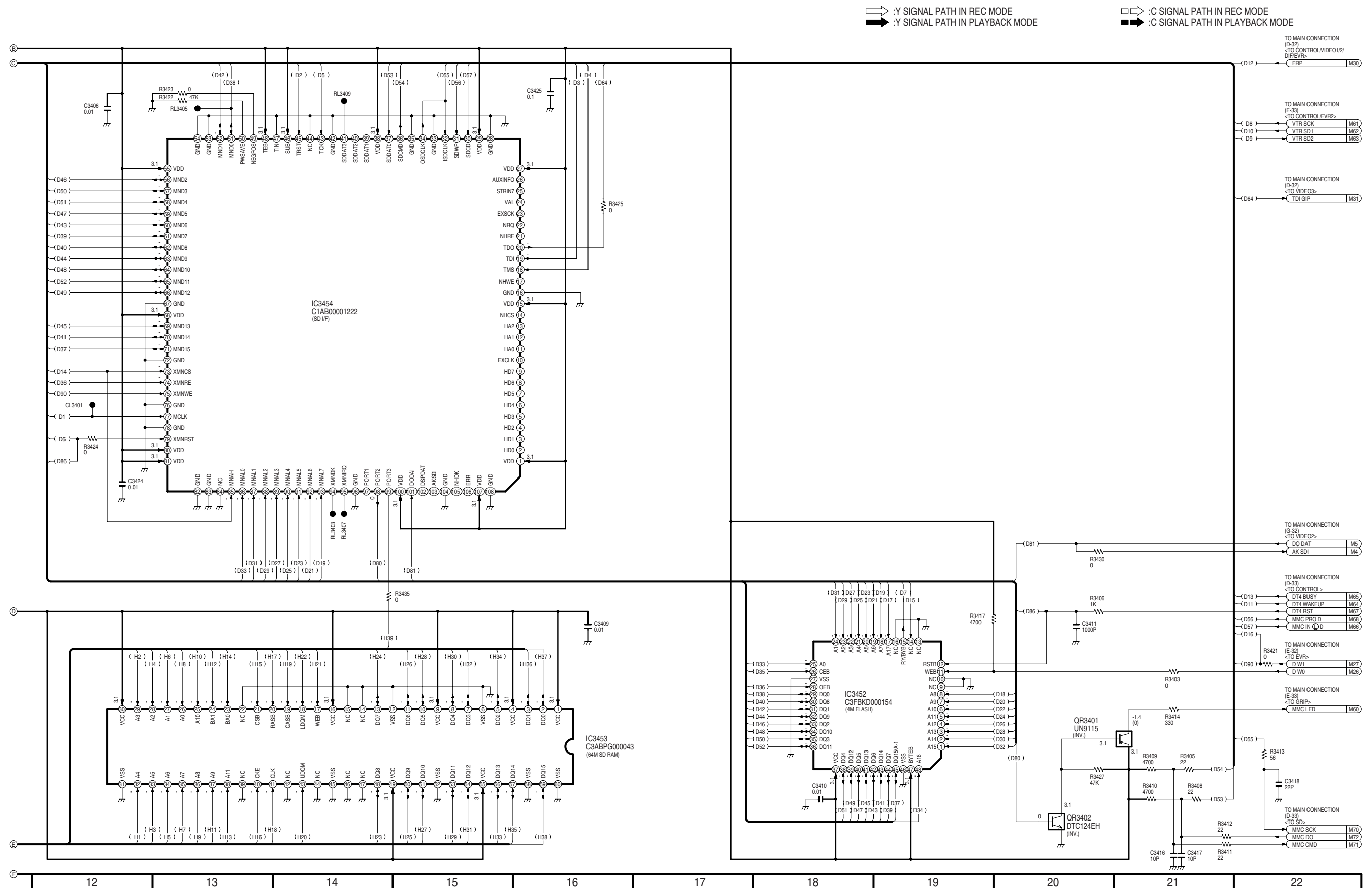


8.33. LCD SCHEMATIC DIAGRAM

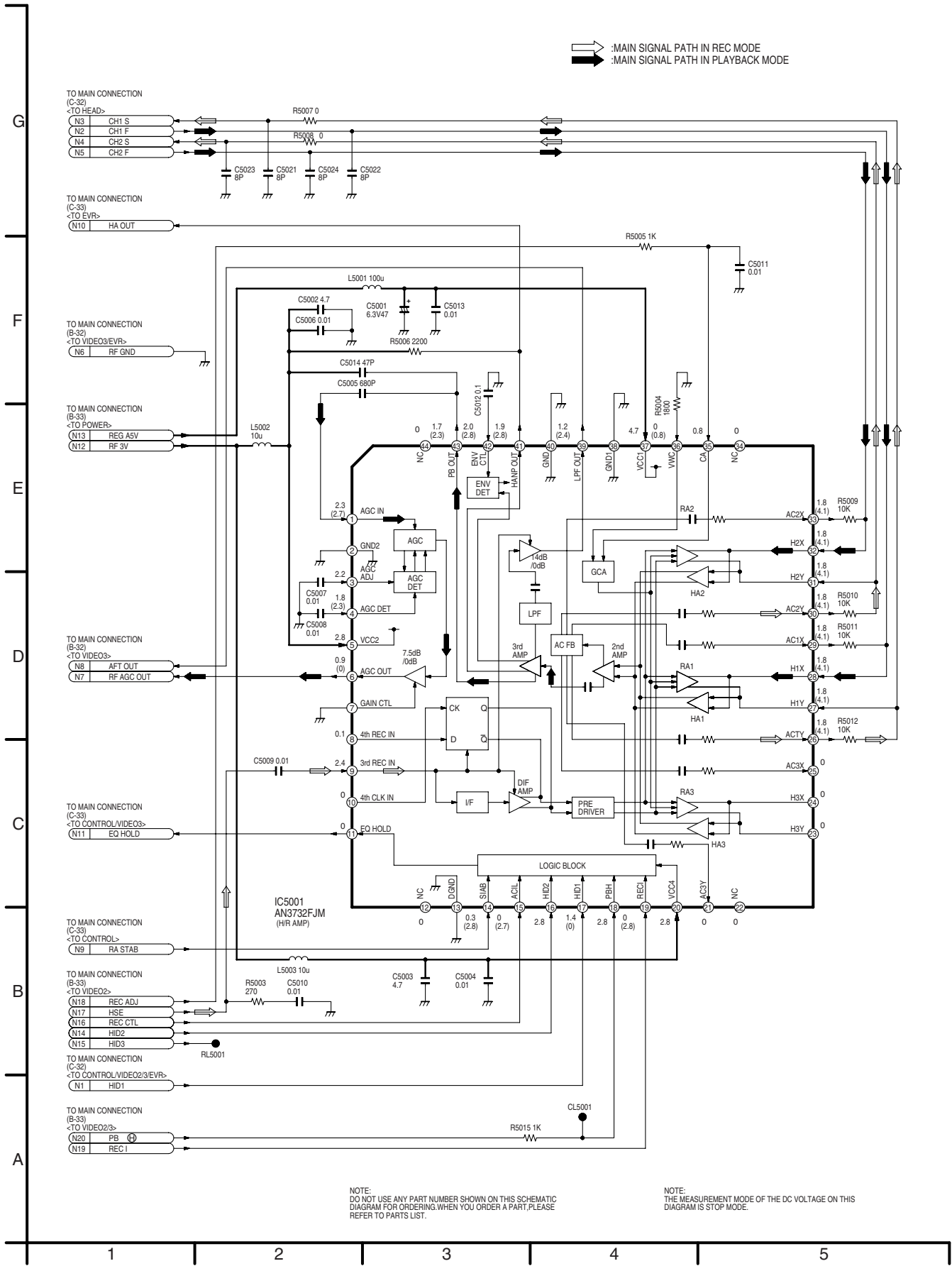


8.34. DSC SCHEMATIC DIAGRAM



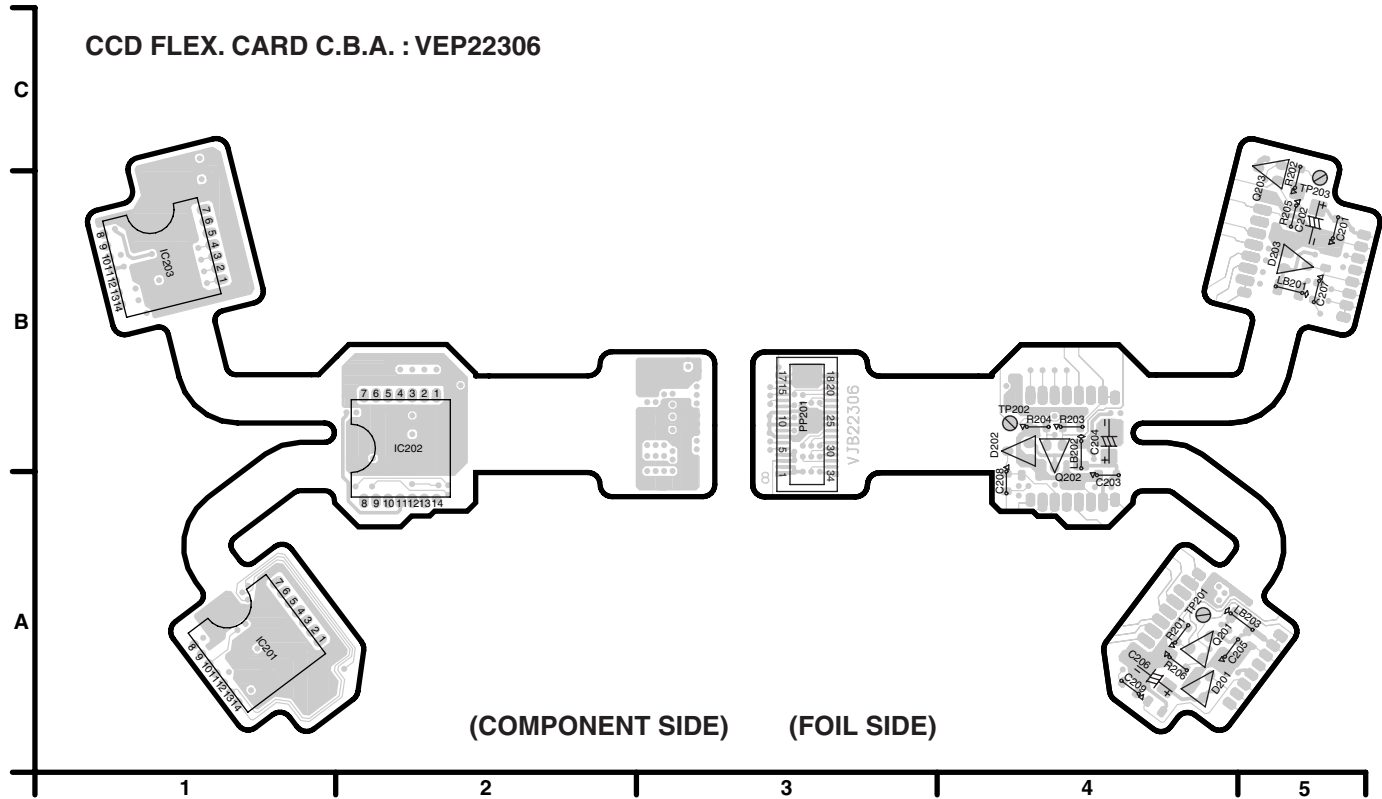


8.35. HEAD REC AMP SCHEMATIC DIAGRAM

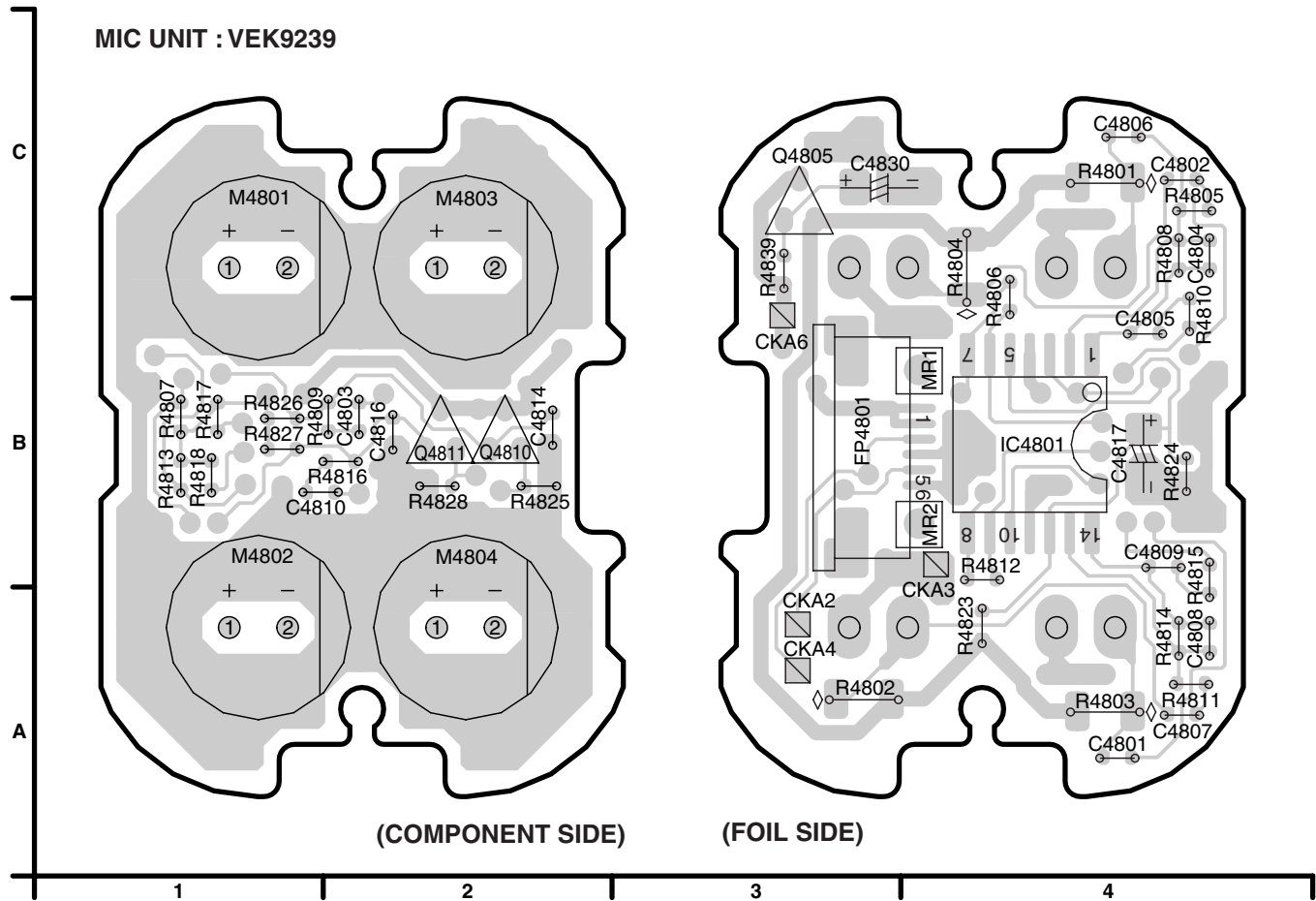


9 CIRCUIT BOARD ASSEMBLIES

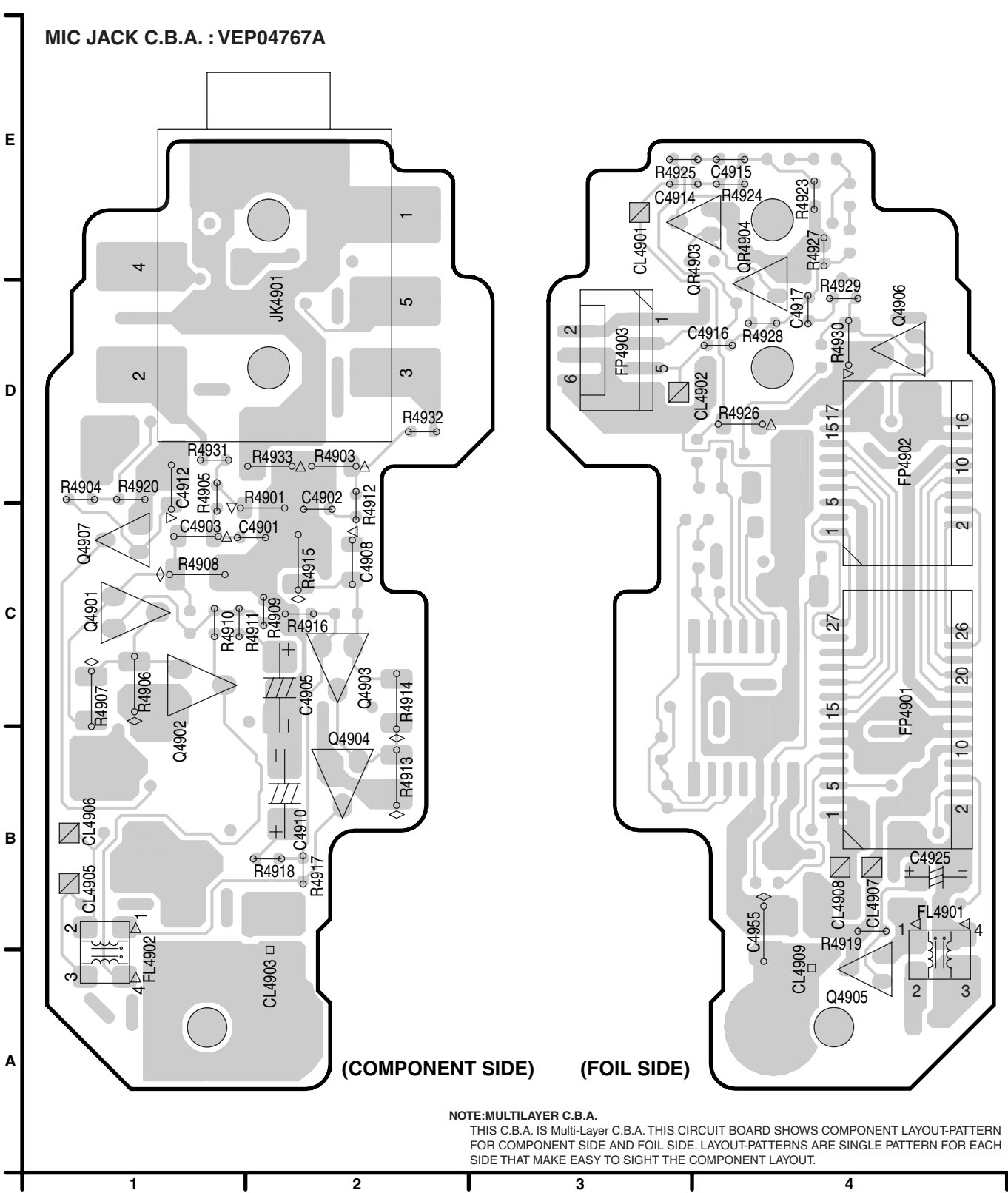
9.1. CCD FLEX. CARD C.B.A.



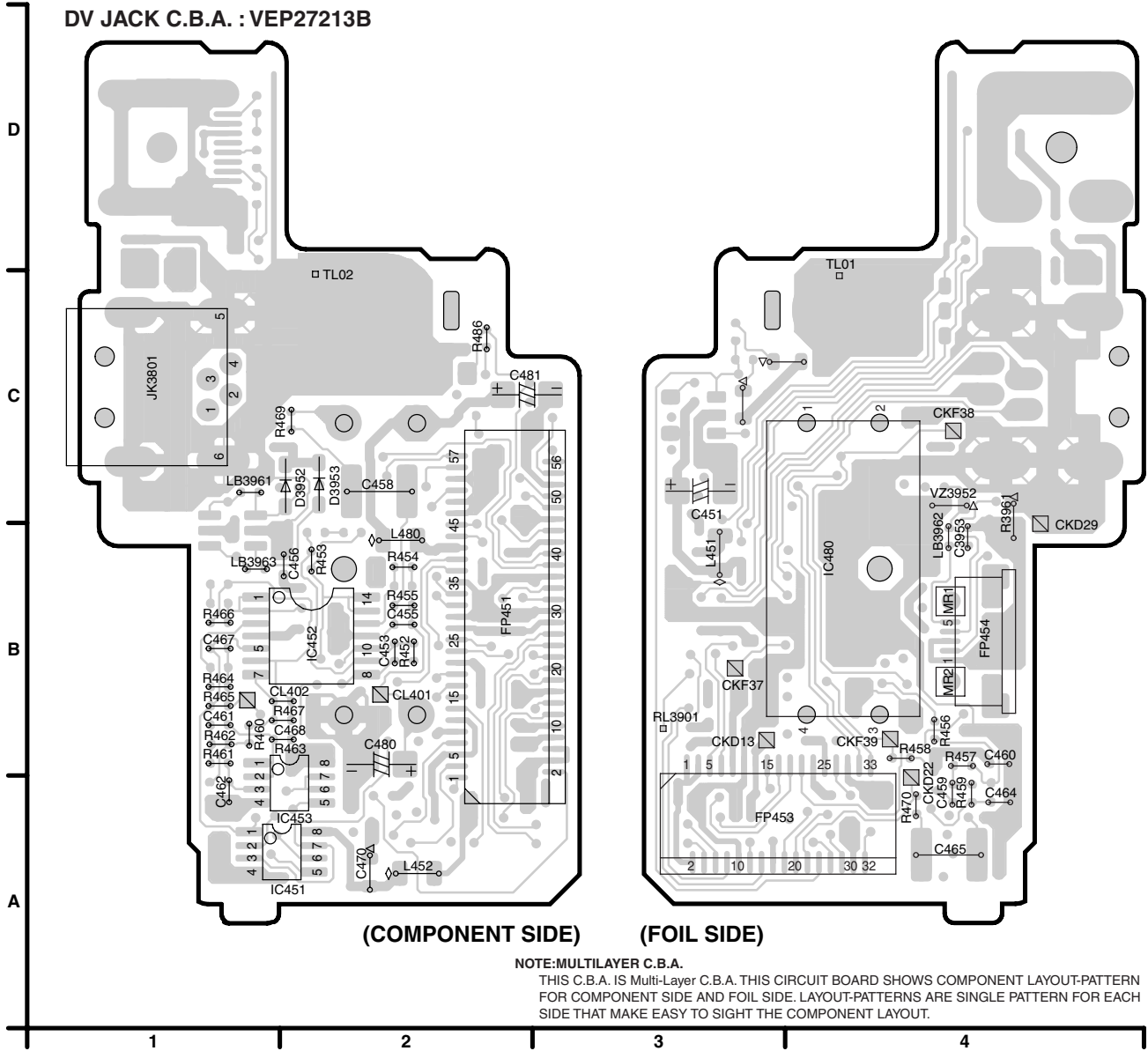
9.2. MIC UNIT



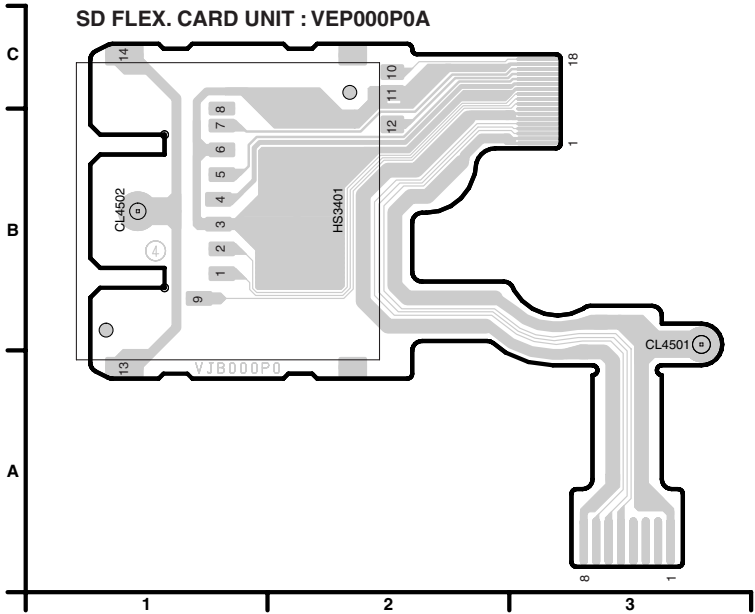
9.3. MIC JACK C.B.A.



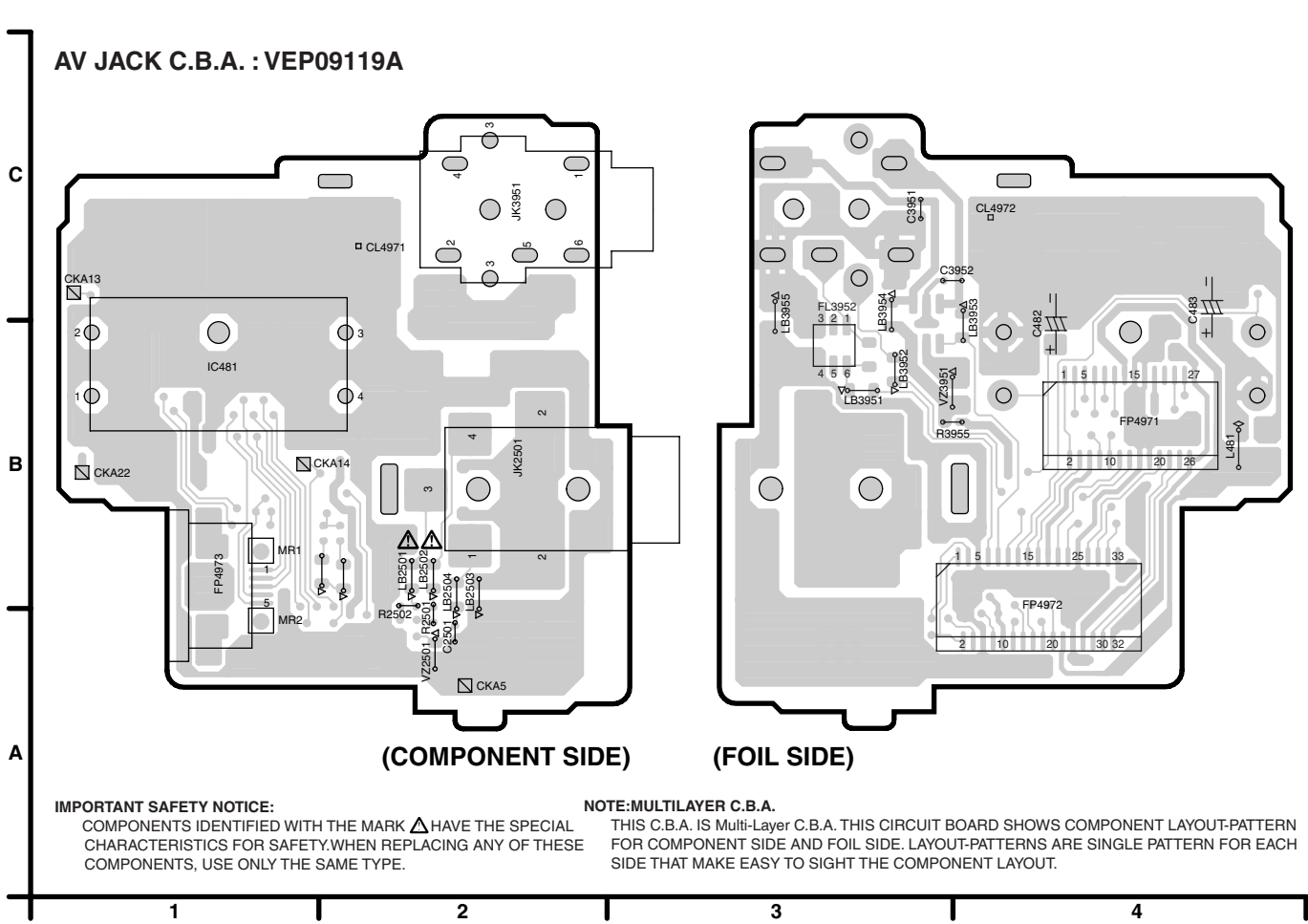
9.4. DV JACK C.B.A.



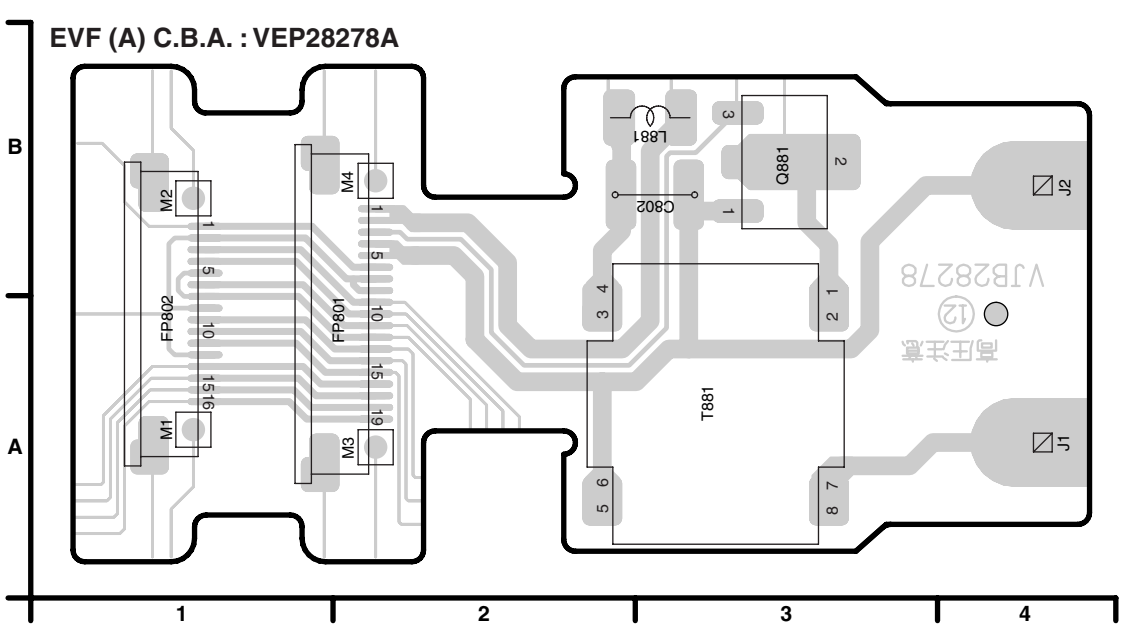
9.5. SD FLEX.CARD UNIT



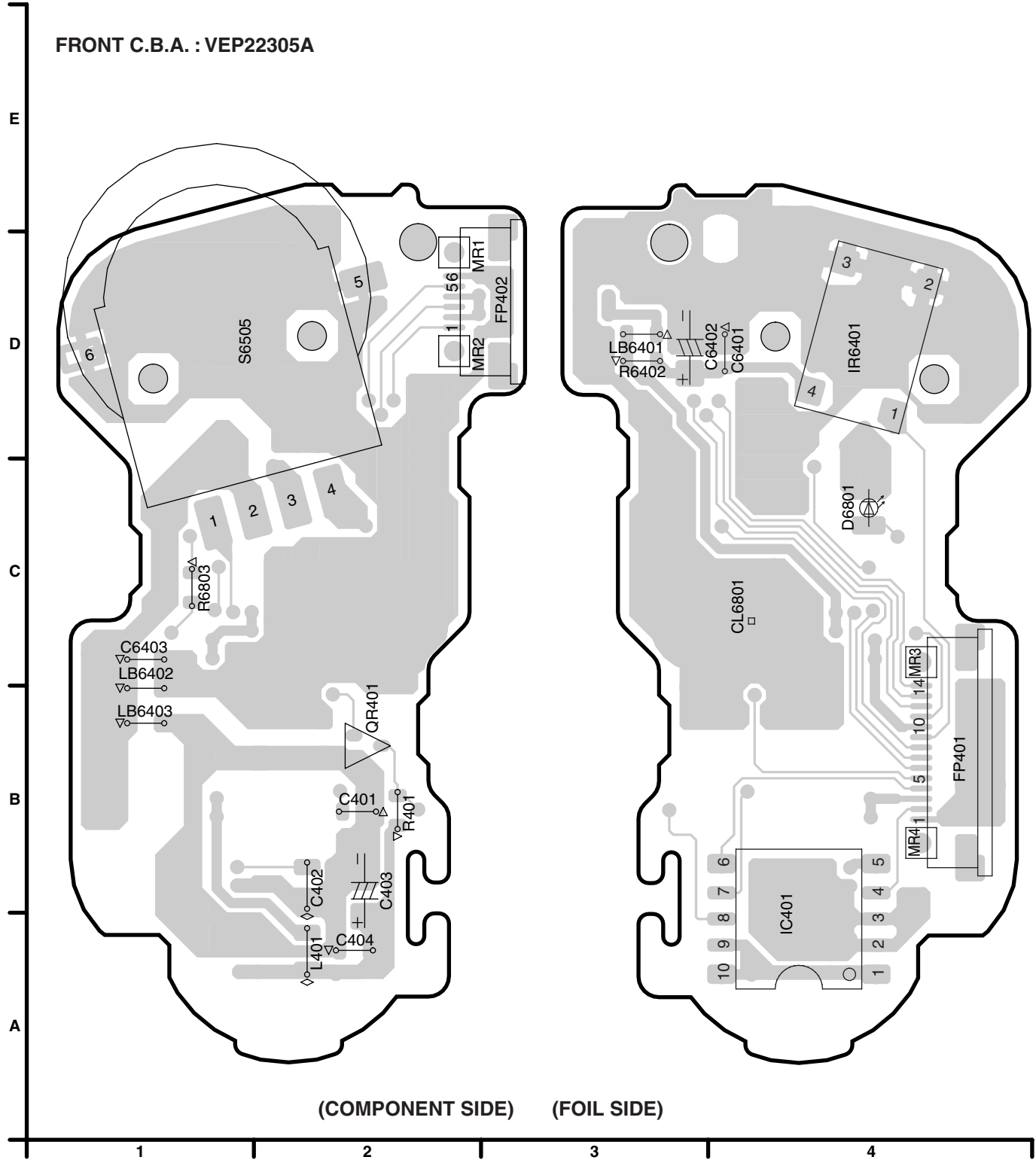
9.6. AV JACK C.B.A.



9.7. EVF(A) C.B.A.



9.8. FRONT C.B.A.



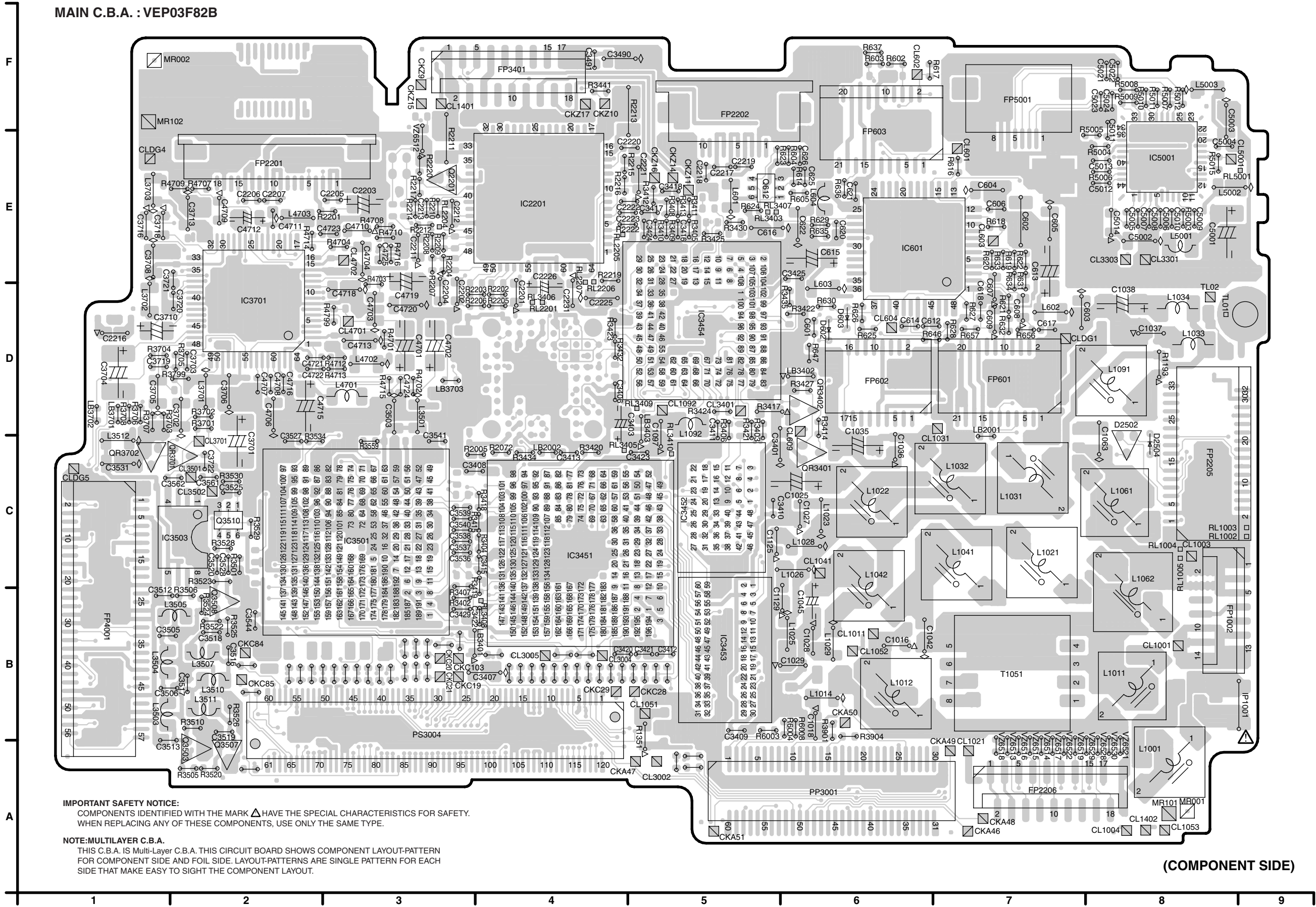
9.9. MONITOR C.B.A.

MONITOR C.B.A.																									
Integrated Circuit		Q904		C-2		T902		D-3		CL914		C-2		CL923		D-4		TL901		E-4					
		Q905		C-2		Test Point				CL915		D-2		CL924		D-4		TL902		A-1					
IC901	B-2	IC903		E-3		Q906		A-3		CL901		B-2		CL916		D-2		CL925		D-2		TL903		E-3	
		IC904		E-3		Transistor & Resistor				CL903		B-2		CL917		D-2		CL926		D-2		Connector			
IC905		D-4		QR901		C-4		CL905		C-1		CL918		D-2		CL927		D-2		FP901		B-4			
Transistor		Q901		E-2		QR902		E-4		CL906		C-2		CL919		D-4		CL928		C-4		FP903		C-3	
		Q902		C-4		QR903		C-4		CL908		C-1		CL920		C-4		CL929		D-2		FP904		D-3	
Q903		B-3		Transformer				CL911		B-2		CL921		C-4		CL930		C-4		FP905		E-2			
				T901		B-3		CL913		B-2		CL922		D-4		CL931		E-4							
ADDRESS INFORMATION																									

9.10. MAIN C.B.A. ADDRESS INFORMATION

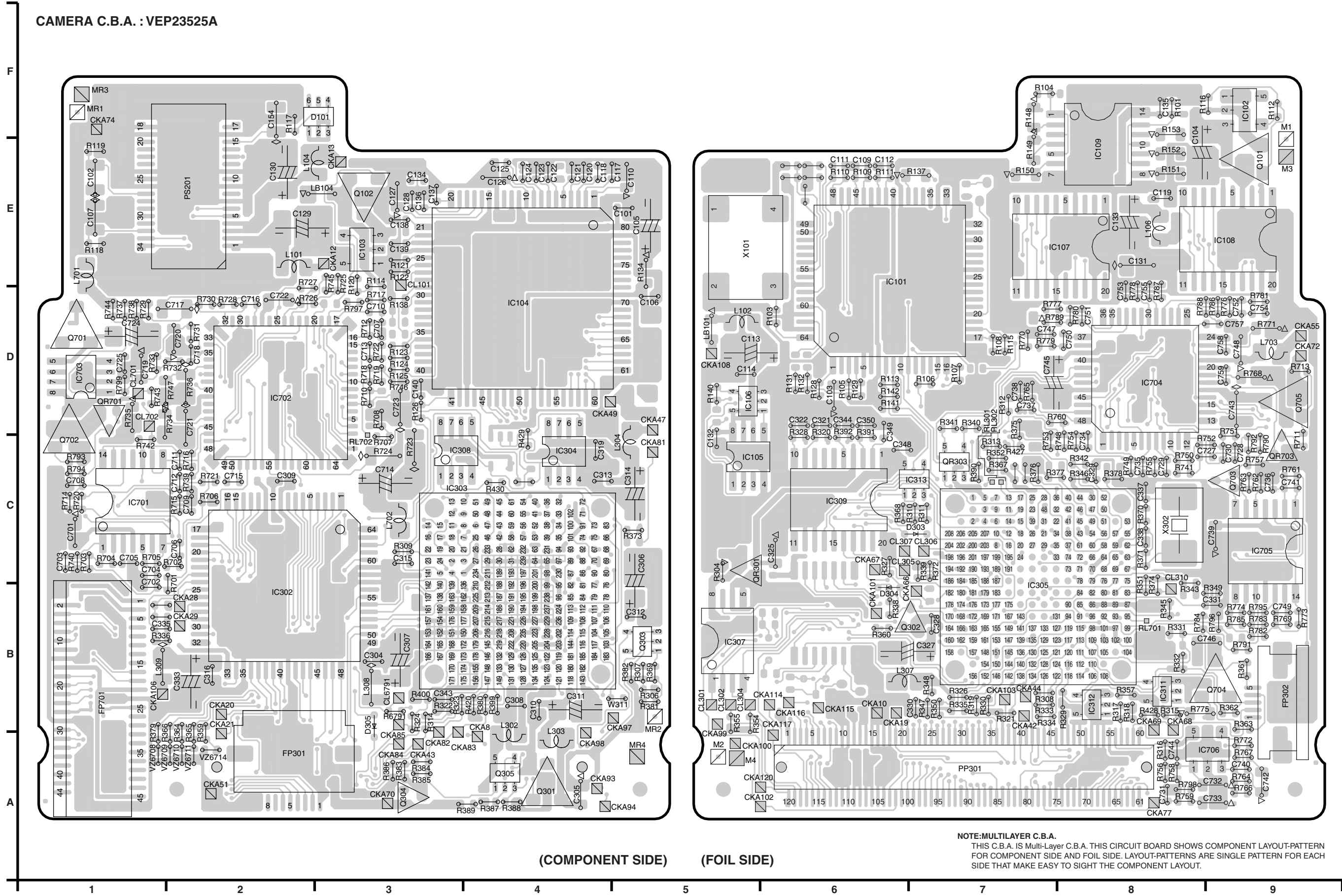
Main C.B.A.																																															
Integrated Circuit			Q3510	C-2	C	CL3002	A-5	C	RL3206	E-4	F	L1062	C-8	C	C617	D-7	C	C1134	B-3	F	C3002	B-5	F	C3412	B-5	C	C4515	F-8	F	R629	E-6	C	R1251	D-2	F	R2065	E-6	F	R2203	D-3	C	R3319	F-3	F	R3713	C-8	F
IC601	D-6	C	Q3701	D-8	F	CL3003	C-5	F	RL3207	E-4	F	L1081	D-8	F	C618	D-7	C	C1141	B-4	F	C3003	B-6	F	C3413	C-4	C	C4516	F-8	F	R630	D-6	C	R1252	D-2	F	R2066	E-6	F	R2204	D-3	C	R3321	E-3	F	R3799	D-2	C
IC603	D-4	F	Q3702	C-8	F	CL3004	B-4	C	RL3208	E-4	F	L1091	D-8	C	C619	D-3	F	C1142	B-4	F	C3006	C-5	F	C3415	C-3	C	C4517	F-8	F	R631	D-7	C	R1253	C-2	F	R2067	E-6	F	R2205	D-4	C	R3322	E-3	F	R3802	C-7	F
IC1001	B-4	F	Q3703	C-8	F	CL3005	B-4	C	RL3209	E-4	F	L1092	D-5	C	C620	E-6	C	C1143	B-4	F	C3012	B-5	F	C3416	E-5	C	C4701	D-3	C	R632	D-7	C	R1254	C-2	F	R2068	E-8	F	R2206	D-3	C	R3323	D-2	F	R3803	B-8	F
IC1002	B-1	F	Transistor & Resistor			CL3201	D-4	F	RL3403	E-5	C	L2001	C-6	F	C621	E-6	C	C1144	B-4	F	C3015	B-6	F	C3417	E-5	C	C4702	D-3	C	R633	D-7	C	R1255	C-3	F	R2069	E-6	F	R2207	D-3	C	R3324	D-2	F	R3804	B-9	F
IC1092	C-3	F	QR601	D-3	F	CL3205	E-2	F	RL3405	C-5	C	L2002	E-7	F	C622	E-6	C	C1150	D-2	F	C3016	B-6	F	C3418	E-5	C	C4703	D-3	C	R634	D-7	C	R1256	C-3	F	R2070	C-8	F	R2208	D-3	C	R3327	D-3	F	R3806	C-9	F
IC2001	D-7	F	QR602	C-4	F	CL3207	E-3	F	RL3406	D-4	C	L2004	D-6	F	C625	E-6	C	C1151	A-4	F	C3017	B-6	F	C3420	B-5	C	C4704	D-3	C	R635	E-6	C	R1351	B-5	C	R2071	C-7	F	R2209	D-3	C	R3328	E-1	F	R3807	C-9	F
IC2002	E-4	F	QR604	D-4	F	CL3208	E-4	F	RL3407	E-5	C	L3001	B-6	F	C626	E-6	C	C1152	A-4	F	C3018	B-6	F	C3421	B-5	C	C4706	D-2	C	R636	E-6	C	R1401	D-1	F	R2072	C-4	C	R2210	E-3	C	R3335	D-2	F	R3808	C-9	F
IC2004	D-6	F	QR605	D-2	F	CL3209	E-4	F	RL3408	B-4	C	L3004	D-4	F	C627	D-3	F	C1153	C-4	F	C3019	B-6	F	C3422	B-4	C	C4707	D-2	C	R637	F-6	C	R1402	D-1	F	R2075	C-8	F	R2211	E-3	C	R3336	D-2	F	R3809	C-9	F
IC2005	E-8	F	QR1001	B-1	F	CL3301	D-8	C	RL3409	D-5	C	L3008	D-4	F	C665	D-3	F	C1154	C-4	F	C3020	A-6	F	C3423	C-5	C	C4708	D-2	C	R642	D-3	F	R1403	D-1	F	R2076	D-7	F	R2212	E-3	C	R3402	B-3	C	R3810	C-8	F
IC2006	E-5	F	QR1004	A-4	F	CL3303	D-8	C	RL3410	C-5	C	L3009	C-6	F	C666	D-3	F	C1155	A-4	F	C3021	A-6	F	C3424	E-5	C	C4709	E-2	C	R643	D-3	F	R1404	C-1	F	R2077	C-7	F	R2213	F-5	C	R3403	D-5	C	R3811	C-9	F
IC2007	E-6	F	QR1050	A-3	F	CL3401	D-5	C	RL3801	C-7	F	L3201	E-4	F	C671	D-4	F	C1156	C-3	F	C3022	B-6	F	C3425	D-6	C	C4710	E-3	C	R646	D-7	C	R1405	D-1	F	R2078	C-6	F	R2214	E-3	C	R3404	C-3	C	R3812	C-8	F
IC2009	D-5	F	QR1101	B-4	F	CL3501	C-2	C	RL3802	C-8	F	L3202	E-4	F	C672	D-2	F	C2001	C-6	F	C3026	C-5	F	C3429	B-3	C	C4711	E-2	C	R647	D-6	C	R1406	D-2	F	R2079	D-7	F	R2215	E-5	C	R3405	E-5	C	R3901	B-6	C
IC2010	E-5	F	QR1421	C-2	F	CL3502	C-2	C	RL5001	E-9	C	L3203	D-4	F	C1001	B-1	F	C2002	E-7	F	C3033	B-6	F	C3490	F-4	C	C4712	E-2	C	R656	D-7	C	R1413	A-2	F	R2080	D-7	F	R2216	E-5	C	R3406	D-5	C	R3904	B-6	C
IC2011	D-4	F	QR2001	C-6	F	CL3503	D-7	F	TL01	D-8	C	L3204	F-3	F	C1003	B-1	F	C2003	C-7	F	C3035	D-5	F	C3491	F-4	C	C4713	D-3	C	R657	D-7	C	R1421	C-2	F	R2081	D-8	F	R2217	E-3	C	R3407	C-3	C	R4501	F-7	F
IC2012	E-6	F	QR2002	E-8	F	CL3701	D-2	C	TL02	D-8	C	L3301	E-1	F	C1005	A-1	F	C2004	C-7	F	C3036	C-5	F	C3501	B-6	F	C4715	D-2	C	R658	D-3	F	R1422	C-2	F	R2082	D-8	F	R2219	D-4	C	R3408	E-5	C	R4504	F-8	F
IC2014	B-6	F	QR2003	E-6	F	CL3801	C-8	F	Fuse			L3304	F-1	F	C1011	B-2	F	C2005	C-7	F	C3037	D-6	F	C3503	D-3	C	C4716	D-2	C	R1001	B-1	F	R2001	F-5	F	R2083	E-7	F	R2220	E-3	C	R3409	E-5	C	R4508	E-8	F
IC2015	E-5	F	QR2005	D-6	F	CL3802	C-8	F	IP1001	B-9	C	L3307	D-3	F	C1012	B-2	F	C2006	F-5	F	C3038	D-5	F	C3505	B-1	C	C4718	D-3	C	R1003	B-1	F	R2002	E-6	F	R2084	E-6	F	R2222	E-5	C	R3410	E-5	C	R4509	E-8	F
IC2201	E-4	C	QR2009	E-7	F	CL3803	C-8	F	Diode			L3501	D-3	C	C1013	C-3	F	C2008	D-6	F	C3039	D-6	F	C3506	B-1	C	C4719	D-3	C	R1005	A-3	F	R2003	E-8	F	R2085	D-8	F	R3001	A-5	F	R3411	E-5	C	R4510	E-8	F
IC3001	B-5	F	QR2010	C-6	F	CL3804	C-8	F	D601	D-4	F	L3502	C-6	F	C1014	C-3	F	C2010	E-6	F	C3040	D-5	F	C3509	A-7	F	C4720	D-3	C	R1008	B-1	F	R2004	E-8	F	R2086	C-7	F	R3002	A-5	F	R3412	E-5	C	R4511	E-8	F
IC3003	B-5	F	QR3401	C-6	C	CL4501	E-8	F	D602	D-6	C	L3503	B-1	C	C1016	B-6	C	C2011	E-8	F	C3041	D-5	F	C3512	C-1	C	C4721	D-2	C	R1010	C-3	F	R2005	C-3	C	R2088	E-5	F	R3003	A-5	F	R3413	E-5	C	R4701	D-3	C
IC3005	D-5	F	QR3402	D-6	C	CL4502	E-8	F	D603	D-6	C	L3504	B-1	C	C1018	B-6	C	C2012	E-6	F	C3042	D-5	F	C3513	B-1	C	C4722	D-2	C	R1011	C-3	F	R2006	E-6	F	R2089	D-8	F	R3006	C-5	F	R3414	D-6	C	R4702	D-3	C
IC3201	E-3	F	QR3502	B-6	F	CL4701	D-3	C	D1051	B-3	F	L3505	B-2	C	C1021	C-2	F	C2013	D-8	F	C3043	C-6	F	C3514	A-7	F	C4723	E-2	C	R1012	C-3	F	R2007	C-7	F	R2090	D-8	F	R3009	A-6	F	R3415	C-3	C	R4703	D-3	C
IC3301	E-2	F	QR3701	C-2	C	CL4702	D-3	C	D1052	B-3	F	L35																																			

9.11. MAIN C.B.A. (COMPONENT SIDE)



[illegible]

9.13. CAMERA C.B.A.



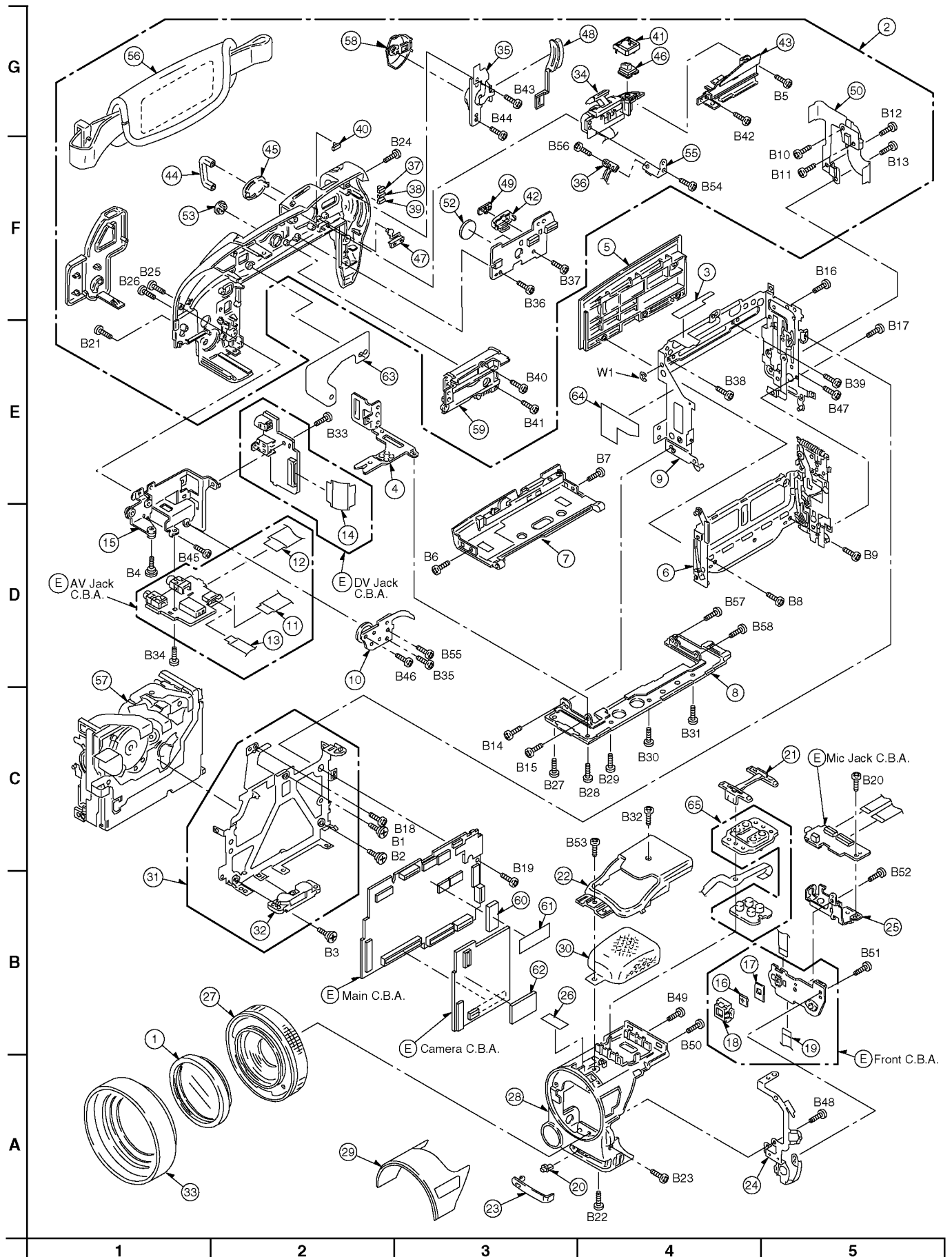
9.14. CAMERA C.B.A. ADDRESS INFORMATION

Camera C.B.A.															
Integrated Circuit		Diode		C137	E-3	C730	C-9	R142	D-6	R368	C-6	R733	D-1	R797	D-3
IC101	E-6	D101	F-3	C138	E-3	C731	A-8	R148	E-7	R369	B-5	R734	D-2	R798	A-8
IC102	F-9	D303	C-6	C139	E-3	C732	A-8	R149	E-7	R370	C-8	R735	D-1	R799	D-1
IC103	E-3	D304	C-6	C140	D-3	C733	A-8	R150	E-7	R371	C-8	R736	D-2		
IC104	D-4	D305	B-3	C154	F-2	C734	C-8	R151	E-8	R372	C-7	R737	D-1		
IC105	C-5	Connector		C304	B-3	C735	C-8	R152	E-8	R373	C-5	R738	D-1		
IC106	D-5	FP301	A-2	C305	A-4	C736	C-9	R153	E-8	R374	C-8	R739	C-2		
IC107	E-7	FP302	B-9	C306	C-5	C737	D-7	R304	C-5	R375	D-7	R740	C-1		
IC108	E-9	FP701	B-1	C307	B-3	C738	D-7	R306	B-5	R376	C-7	R741	C-8		
IC109	E-8	PP301	A-7	C308	B-4	C739	C-8	R307	B-5	R377	C-7	R742	C-1		
IC302	C-2	PS201	E-2	C309	C-2	C740	A-9	R308	B-7	R378	C-8	R743	D-1		
IC303	B-4	Crystal Osillator		C310	B-4	C741	C-9	R309	C-3	R379	B-1	R744	D-1		
IC304	C-4	X101	E-5	C311	B-4	C742	A-9	R310	C-6	R380	B-4	R745	E-3		
IC305	C-7	X302	C-8	C312	B-5	C743	D-9	R311	C-7	R381	B-5	R746	D-3		
IC307	B-5	Coil		C313	C-4	C744	A-8	R312	D-7	R382	B-5	R747	D-2		
IC308	C-3	L101	E-2	C314	C-5	C745	D-7	R313	C-7	R383	A-3	R748	C-8		
IC309	C-6	L102	D-5	C315	C-3	C746	B-8	R314	B-3	R384	A-3	R749	C-8		
IC311	B-8	L104	E-3	C316	B-2	C747	D-7	R315	B-8	R385	A-3	R750	C-8		
IC312	B-8	L106	E-8	C319	C-4	C748	D-9	R316	A-8	R386	A-3	R751	D-9		
IC313	C-6	L302	B-4	C321	D-6	C749	B-9	R317	B-8	R387	A-4	R752	C-8		
IC701	C-1	L303	A-4	C322	D-6	C750	D-7	R318	B-8	R388	A-4	R753	C-7		
IC702	D-2	L304	C-5	C325	C-6	C751	D-8	R319	B-7	R389	A-4	R754	C-8		
IC703	D-1	L307	B-6	C327	B-6	C752	D-9	R320	D-6	R390	C-7	R755	C-8		
IC704	D-8	L308	B-3	C328	B-7	C753	E-8	R321	B-7	R391	D-6	R756	A-8		
IC705	C-9	L309	B-1	C329	C-8	C754	D-9	R322	B-3	R392	D-6	R757	C-9		
IC706	A-8	L701	E-1	C330	B-6	C755	E-8	R323	B-4	R399	B-4	R758	A-8		
Transistor		L702	C-3	C331	B-8	C757	D-8	R324	B-3	R400	B-3	R759	A-8		
Q101	E-9	L703	D-9	C333	B-2	C758	D-9	R326	B-7	R420	B-4	R760	D-7		
Q102	E-3	LB101	D-5	C335	B-1	C759	D-9	R327	C-6	R427	C-7	R761	C-9		
Q301	A-4	LB104	E-3	C337	C-8	Resistor		R328	D-6	R428	B-8	R762	C-9		
Q302	B-6	Capacitor		C338	C-8	R101	E-8	R329	B-7	R429	C-4	R763	C-9		
Q303	B-5	C101	E-5	C343	B-3	R103	D-6	R330	B-7	R430	C-4	R764	A-9		
Q304	A-3	C102	E-1	C344	D-6	R104	E-7	R331	B-8	R6791	B-3	R765	D-7		
Q305	A-4	C103	D-6	C348	C-6	R105	D-6	R332	B-8	R701	C-2	R766	A-9		
Q701	D-1	C104	E-8	C349	D-6	R106	D-7	R333	B-7	R702	C-2	R767	A-9		
Q702	D-1	C105	E-5	C350	D-6	R107	D-7	R334	B-7	R703	C-1	R768	D-9		
Q703	C-9	C106	D-5	C701	C-1	R108	D-7	R335	B-7	R704	C-1	R769	B-9		
Q704	B-8	C107	E-1	C702	B-1	R109	E-6	R336	B-1	R705	C-1	R770	D-7		
Q705	D-9	C109	E-6	C703	C-1	R110	E-6	R338	B-6	R706	C-2	R771	D-9		
Transistor & Resistor		C110	E-5	C704	C-1	R111	E-6	R339	C-7	R707	D-3	R772	B-9		
QR301	C-5	C111	E-6	C705	C-1	R112	E-9	R340	D-7	R708	D-3	R773	B-9		
QR303	C-7	C112	E-6	C706	C-2	R113	D-6	R341	D-7	R710	D-3	R774	B-9		
QR701	D-1	C113	D-5	C707	D-3	R114	E-3	R342	C-8	R711	C-9	R775	B-8		
QR703	C-9	C114	D-5	C708	C-1	R115	D-7	R343	C-8	R712	D-3	R776	D-9		
Test Point		C117	E-5	C709	C-2	R116	E-8	R345	B-8	R713	D-9	R777	D-7		
CL101	E-3	C118	E-4	C710	D-3	R117	F-2	R346	C-8	R714	C-1	R778	E-8		
CL301	B-5	C119	E-8	C711	C-2	R118	E-1	R347	B-7	R715	C-2	R779	D-7		
CL302	B-5	C120	E-4	C712	C-2	R119	E-1	R348	B-7	R716	C-2	R780	D-8		
CL304	B-5	C121	E-4	C713	D-3	R120	E-3	R349	B-8	R717	D-3	R781	D-9		
CL305	C-6	C122	E-4	C714	C-3	R121	E-3	R350	B-7	R718	D-3	R782	B-9		
CL306	C-7	C123	E-4	C715	C-2	R122	E-3	R351	C-8	R719	D-3	R783	B-9		
CL307	C-6	C124	E-4	C716	D-2	R123	D-3	R352	C-7	R720	C-1	R784	B-8		
CL310	C-8	C125	E-4	C717	D-2	R124	D-3	R354	B-5	R721	C-2	R785	B-9		
CL701	D-1	C126	E-4	C718	D-2	R125	D-3	R355	B-5	R722	D-3	R786	D-8		
CL702	D-1	C127	E-3	C719	D-1	R126	D-3	R357	B-8	R723	C-3	R787	E-8		
CL6791	B-3	C128	E-3	C720	D-2	R128	D-6	R359	B-2	R724	C-3	R788	D-8		
RL301	C-7	C129	E-2	C721	D-2	R129	D-6	R360	B-6	R725	E-3	R789	D-7		
RL302	C-7	C130	E-2	C722	D-2	R131	D-6	R361	B-9	R726	D-2	R790	C-9		
RL701	B-8	C131	E-8	C723	D-3	R132	D-6	R362	B-9	R727	E-2	R791	B-9		
RL702	D-3	C132	C-5	C724	D-1	R134	E-5	R363	B-9	R728	D-2	R792	C-9		
		C133	E-8	C725	D-1	R137	E-6	R364	B-2	R729	D-1	R793	C-1		
		C134	E-3	C727	C-8	R138	D-3	R365	B-2	R730	D-2	R794	C-1		
		C135	E-8	C728	C-9	R140	D-5	R366	B-2	R731	D-2	R795	B-9		
		C136	E-3	C729	C-8	R141	D-6	R367	C-7	R732	D-2	R796	B-9		

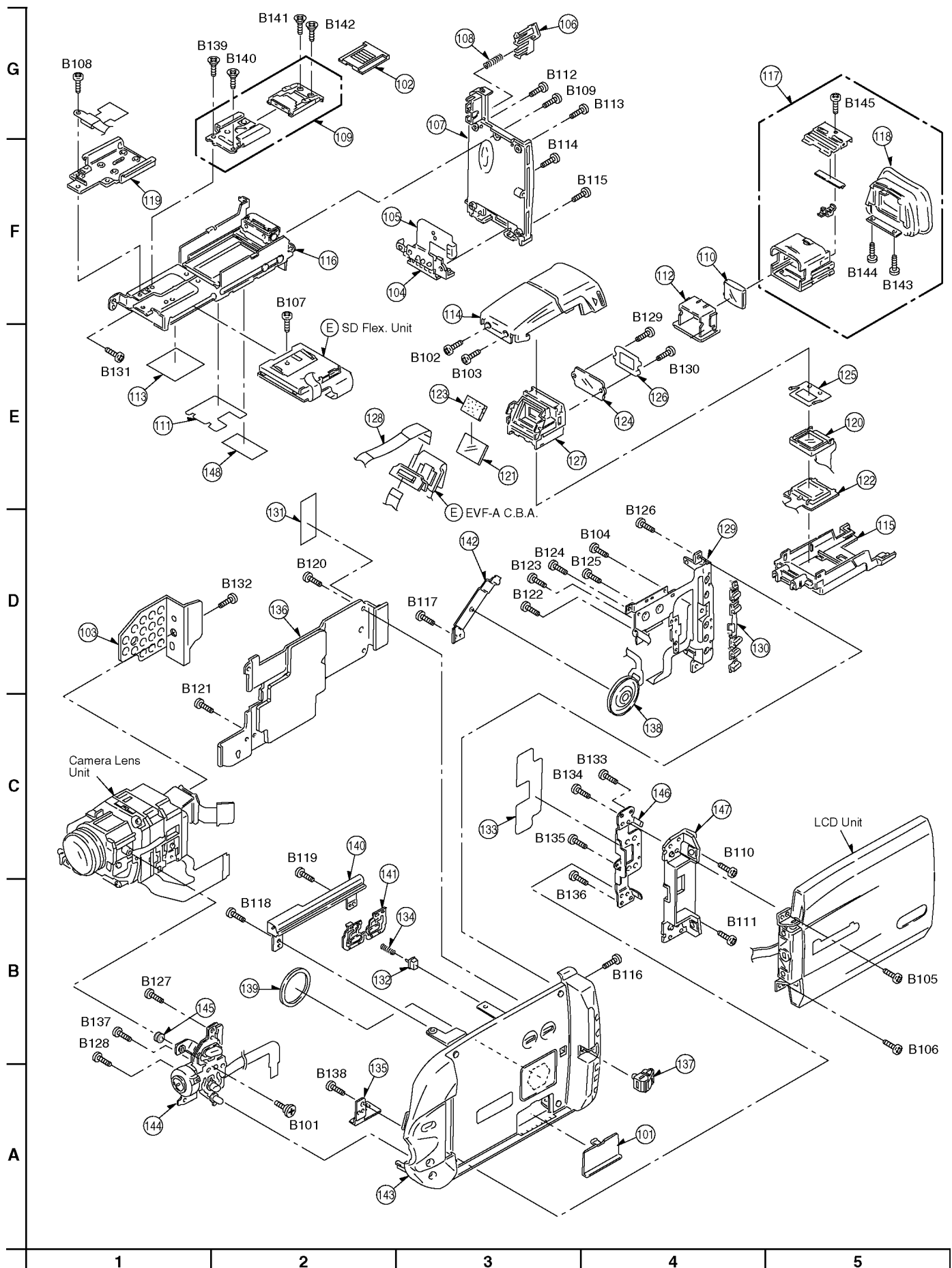
ADDRESS INFORMATION

10 EXPLODED VIEWS

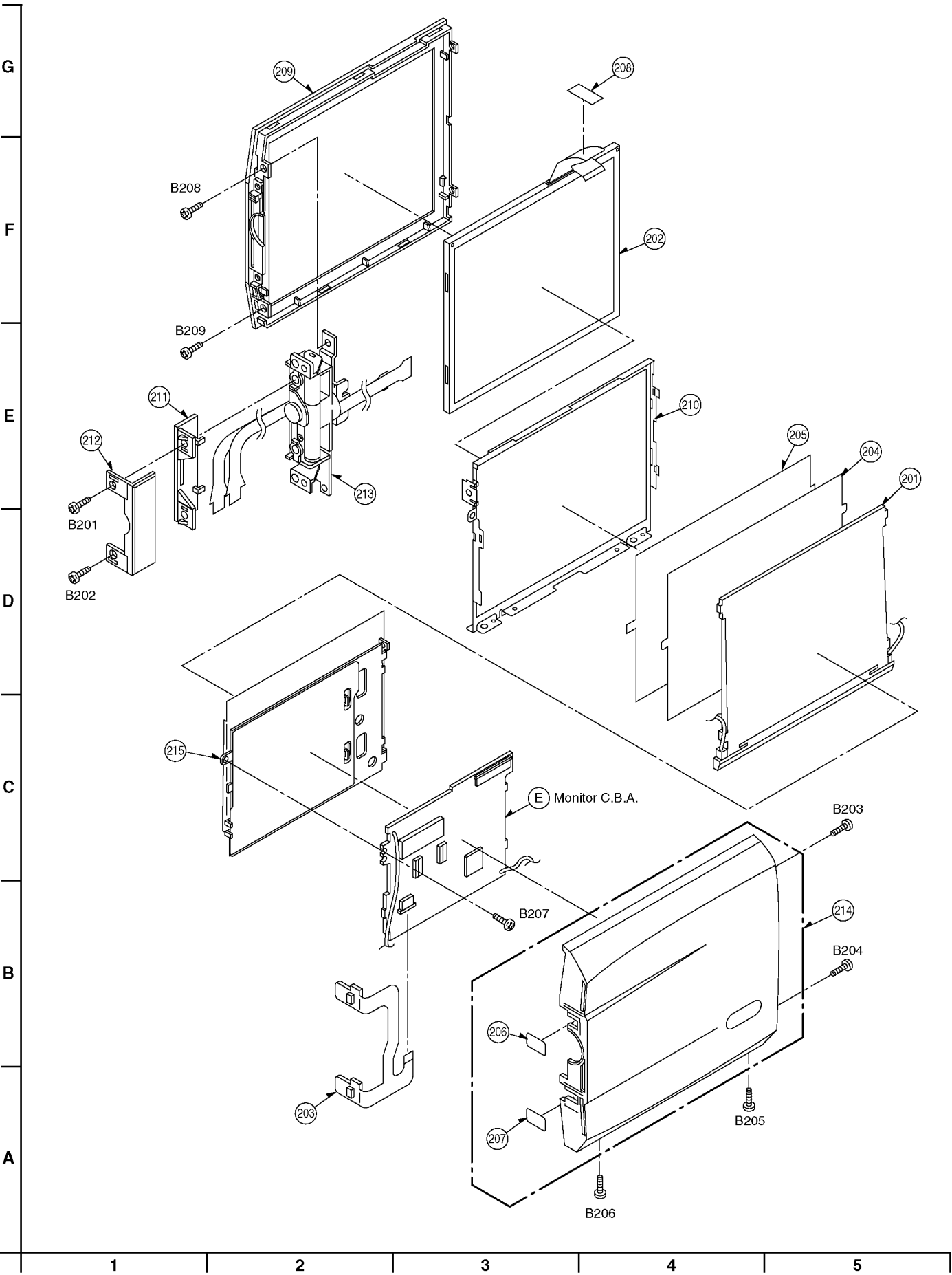
10.1. FRAME & CASING SECTION (1)



10.2. FRAME & CASING SECTION (2)



10.3. LCD SECTION

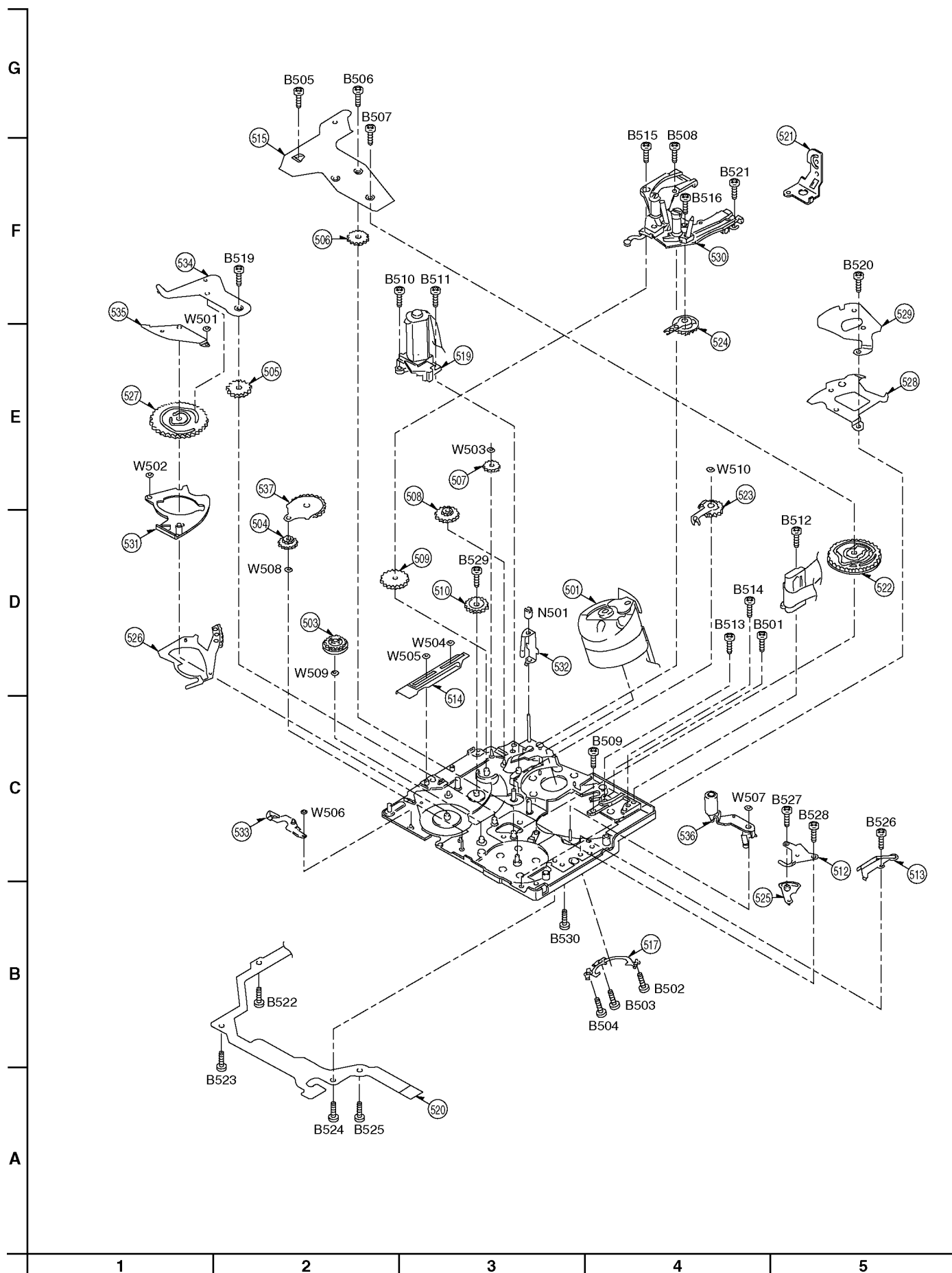


Exploded view diagram of a mechanical assembly. The diagram shows the following components and their assembly relationships:

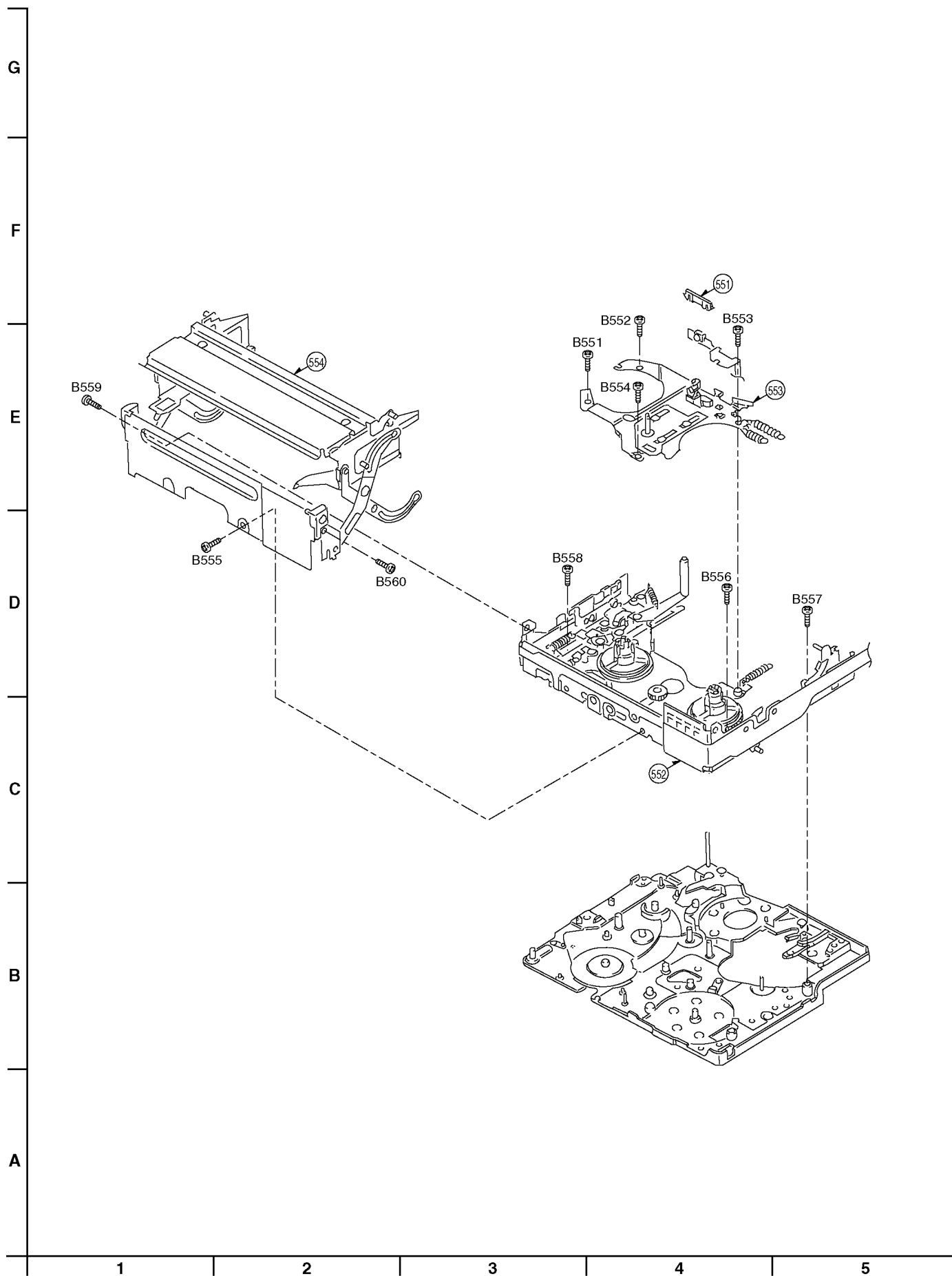
- Main Frame (301):** The central component, with a **CCD Flex. Card C.B.A. (E)** mounted on it.
- Motor Assembly (310, 311, 312, 313, 314, 315, 316, 317):** A complex assembly of mechanical parts, including a motor (310), gears (311, 312), and structural frames (313, 314, 315, 316, 317).
- Bracket Assembly (304, 305, 306, 307, 308, 309):** A sub-assembly consisting of a bracket (304), a plate (305), and various fasteners (306, 307, 308, 309).
- Fasteners:** Various screws and bolts are labeled, including B301, B302, B303, B304, B305, B306, B307, B308, B309, B310, B311, and B312.

The diagram is organized into a grid with letters A through G on the vertical axis and numbers 1 through 5 on the horizontal axis.

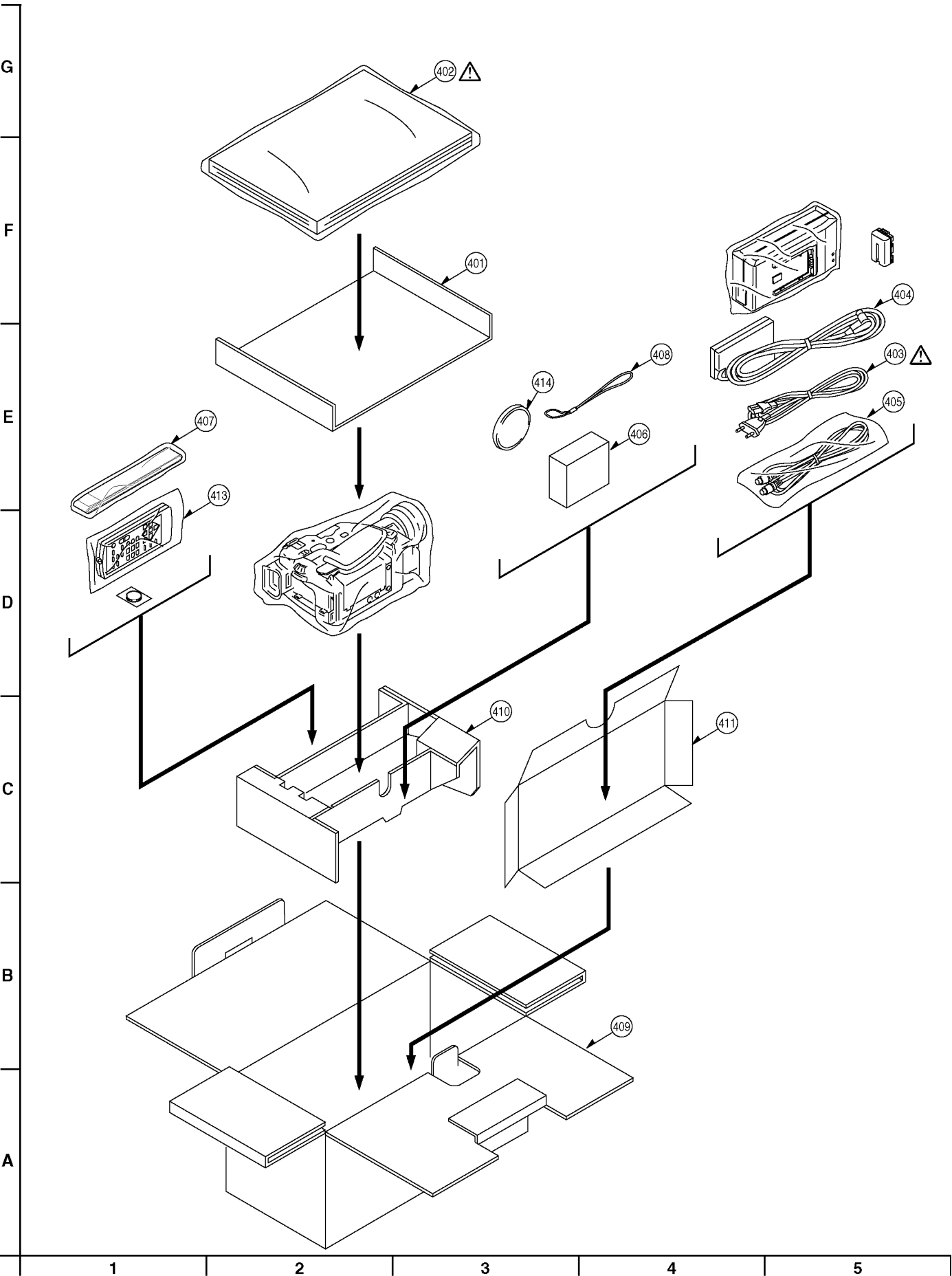
10.5. VCR MECHANISM SECTION (1)



10.6. VCR MECHANISM SECTION (2)



10.7. PACKING PARTS & ACCESSORIES SECTION



11 REPLACEMENT PARTS LIST

11.1. FRAME & CASING SECTION (1) PARTS LIST

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYF2744	LENS PROTECTOR ASS'Y	1		B32	XQN16+B8FN	SCREW	1	
2	N9ZZ00000120	SIDE CASE (L) (1) ASS'Y	1		B33-35	XQN16+BF3FN	SCREW	3	
3	VGQ5984	MAIN FRAME BARRIER	1		B36-41	XQN16+BJ3FN	SCREW	6	
4	VMP6557	GRIP BELT ANGLE	1		B42-47	XQN16+BJ4FZ	SCREW	6	
5	VYK9899	CASSETTE COVER ASS'Y	1		B48-53	XQN16+BJ5	SCREW	6	
6	VXA6637	OUT HOLDER ASS'Y	1		B54,55	XQN16+BJ6FZ	SCREW	2	
7	VYK9597	BOTTOM COVER ASS'Y	1		B56	XQN2+B2FZ	SCREW	1	
8	VYK9845	BOTTOM FRAME ASS'Y	1		B57,58	XQS16+A2	SCREW	2	
9	VYQ2109	MAIN FRAME (1) ASS'Y	1		W1	XUC2FP	E-RING	1	
10	VEK9237	S JACK FLEX. ASS'Y	1						
11	VWJ1450	MIC JACK - AV FLEX.	1						
12	VWJ1451	AV - DV FLEX.	1						
13	VWJ1454	AV - CAMERA FLEX.	1						
14	VWJ1452	DV - MAIN FLEX.	1						
15	VYQ2142	JACK FRAME (1) ASS'Y	1						
16	VDL0397	IR CUT FILTER	1						
17	VGQ3306	IR PLATE SPACER R	1						
18	VGQ4592	AWT HOLDER	1						
19	VWJ1449	FRONT FLEX.	1						
20	VGL0912	TALLY PANE LIGHT	1						
21	VGQ6014	DUMPER PRESSER PIECE	1						
22	VKM5750	MIC TOP CASE	1						
23	VKW2842	IR SENSOR WINDOE	1						
24	VMC1666	FRONT EARTH ANGLE	1						
25	VMP6570	MIC JACK ANGLE	1						
26	VMZ3139	MIC FLEX. BARRIER	1						
27	VXP2151	MF ASS'Y	1						
28	VYK0C31	FRONT CASE (1) ASS'Y	1						
29	VYK0C32	FRONT COVER ASS'Y	1						
30	VYQ2120	MIC NET ASS'Y	1						
31	VYQ2212	MECHA. FRAME ASS'Y	1						
32	VMD3345	TRIPOD FRAME	1						
33	VYQ2284	LENS HOOD ASS'Y	1						
34	N9ZZ00000026	ZOOM ASS'Y	1						
35	N9ZZ00000072	S/S POWER FLEX.	1						
36	VEK8778	DEW SENSOR ASS'Y	1						
37-39	VGL0873	PANE LIGHT	3						
40	VGL0898	PANE LIGHT (SD)	1						
41	VGQ5665	PHOTO BUTTON GUIDE	1						
42	VGQ5814	MODE SELECT KNOB	1						
43	VGQ5815	L COVER	1						
44	VGQ5851	GRIP BELT PIECE	1						
45	VGQ5886	BATTERY COVER PIECE	1						
46	VGU8416	PHOTO BUTTON	1						
47	VGU8420	RESET BUTTON	1						
48	VGU8422	S/S BUTTON	1						
49	VGU8568	MODE SELECT KNOB HOLDER	1						
50	VYQ1857	POWER BUTTON	1						
52	VSB0407	BATTERY	1						
53	VKF3272	MECHA. ADJ. PIECE (SMALL)	1						
55	VMP6433	DEW SENSOR ANGLE	1						
56	VYC0833	GRIP BELT	1						
57	VXY1626	MECHA ASS'Y	1						
59	VXA6768	SDC HOLDER	1						
60	VGQ6180	CUSHION	1						
61	VGQ5170	TAPE	1						
62	VGQ6302	PROTECT SHEET	1						
63	VGQ6159	ALUMINUM FOIL	1						
64	VGQ6165	BARRIER	1						
65	VEK9239	MIC ASS'Y	1						
B1-B3	VHD1133	SCREW	3						
B4	VHD1353	SCREW	1						
B5	VHD1365	SCREW	1						
B6,B7	VHD1376	SCREW	2						
B8,B9	VHD1384	SCREW	2						
B10-13	XQN14+B12	SCREW	4						
B14,15	XQS16+A2	SCREW	2						
B16,17	XQN16+B2FN	SCREW	2						
B18-20	XQN16+B3FN	SCREW	3						
B21-23	XQN16+B4FN	SCREW	3						
B24-31	XQN16+B4FZ	SCREW	8						

11.2. FRAME & CASING SECTION (2) PARTS LIST

[illegible]

11.3. LCD SECTION PARTS LIST

[illegible][illegible]

11.4. CAMERA LENS SECTION PARTS LIST

[illegible]

11.5. VCR MECHANISM SECTION (1) PARTS LIST

[illegible][illegible]

11.6. VCR MECHANISM SECTION (2) PARTS LIST

[illegible]

11.7. PACKING PARTS & ACCESSORIES SECTION PARTS LIST

[illegible]

11.8. ELECTRICAL REPLACEMENT PARTS LIST

[illegible]

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2036	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C2038	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C2039	ECJ0EB1E102K	C.CAPACITOR CH 25V 1000P	1	
C2040	ECJ0EC1H050C	C.CAPACITOR CH 50V 5P	1	
C2041,42	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	2	
C2043	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C2044	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C2046	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C2047	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C2048	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C2050,51	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	2	
C2052	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C2201,02	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	2	
C2203	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C2204	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	
C2205-07	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	3	
C2211,12	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	2	
C2213	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C2216	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	
C2217-19	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	3	
C2220	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C2221	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	
C2222,23	ECJ0EB1E472K	C.CAPACITOR CH 25V 4700P	2	
C2225	ECJ2VB1C224K	C.CAPACITOR CH 16V 0.22U	1	
C2226	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
C2231	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	
C2232	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3001	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3002	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3003	F3F0G476A009	T.CAPACITOR CH 4V 47U	1	
C3006	ECJ0EC1H330J	C.CAPACITOR CH 50V 33P	1	
C3012	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3015-22	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	8	
C3026	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3033	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3035	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C3036	ECJ0EC1H330J	C.CAPACITOR CH 50V 33P	1	
C3037	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C3038,39	ECJ0EC1H101J	C.CAPACITOR CH 50V 100P	2	
C3040-42	F1H0J105A003	C.CAPACITOR CH6.3V 5M	3	
C3043	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3044,45	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	2	
C3048	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3201-03	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	3	
C3204,05	ECJ0EC1H070C	C.CAPACITOR CH 50V 7P	2	
C3206	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3207	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3208	F3F0G476A009	T.CAPACITOR CH 4V 47U	1	
C3209	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3210	F3F0G476A009	T.CAPACITOR CH 4V 47U	1	
C3211	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3212	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3214	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	
C3216,17	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	2	
C3218	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3219	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C3220	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3302	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3303	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3304	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3305	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3308	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3309	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C3310	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3311	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3315	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3318	ECJ0EC1H101J	C.CAPACITOR CH 50V 100P	1	
C3320	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3322	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3324	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
C3325	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3326	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3327	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C3328-33	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	6	
C3336	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3340	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3401	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3403	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
C3406	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3407	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3408	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3409,10	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	2	
C3411	ECJ0EB1E102K	C.CAPACITOR CH 25V 1000P	1	
C3412	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3413	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3415	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3416,17	F1G1H100A448	C.CAPACITOR CH 50V 10P	2	
C3418	ECJ0EC1H220J	C.CAPACITOR CH 50V 22P	1	
C3420	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3421	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3422,23	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	2	
C3424	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3425	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3429	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3490	F1J0J335A002	C.CAPACITOR CH6.3V 3.3U	1	
C3491	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3501	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3503	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3505,06	ECJ0EC1H560J	C.CAPACITOR CH 50V 56P	2	
C3509	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3512,13	ECJ0EC1H220J	C.CAPACITOR CH 50V 22P	2	
C3514	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3516,17	ECJ0EC1H560J	C.CAPACITOR CH 50V 56P	2	
C3518,19	ECJ0EC1H220J	C.CAPACITOR CH 50V 22P	2	
C3520	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3524,25	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	2	
C3526	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3527,28	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	2	
C3530,31	F1J0J475A006	C.CAPACITOR CH6.3V 1U	2	
C3534,35	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	2	
C3536-41	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	6	
C3544	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3561,62	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	2	
C3701	F3H0J1070005	T.CAPACITOR CH6.3V 100U	1	
C3702	ECJ2YB0J225K	C.CAPACITOR CH6.3V 2.2U	1	
C3703	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3704	F3H0J1070005	T.CAPACITOR CH6.3V 100U	1	
C3705	ECJ2YB0J225K	C.CAPACITOR CH6.3V 2.2U	1	
C3706	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3708	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3710	EEJK0JS106	E.CAPACITOR 6.3V 10M	1	
C3713	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3716	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	
C3718	ECJ1ZB1H103K	C.CAPACITOR CH 50V 0.01U	1	
C3719-22	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	4	
C3801	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3803	ECST0GY226	T.CAPACITOR CH 4V 22U	1	
C3805	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C3807	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C3808	ECJ0EB1E271K	C.CAPACITOR CH 25V 270P	1	
C3809	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C3811	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4502	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4503	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
C4504	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C4506	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C4508	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C4510	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C4513,14	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	2	
C4515	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C4516,17	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	2	
C4701,02	F3F0J226A007	T.CAPACITOR CH6.3V 22U	2	
C4703,04	F1J0J335A003	C.CAPACITOR CH6.3V 3.3U	2	
C4706	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C4707	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C4708	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4709,10	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	2	
C4711	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4712	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
C4713	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	

Components identified with the mark Δ have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4715	F3F0J226A007	T.CAPACITOR CH6.3V 22U	1		IC3201	MN2MD00006YD	IC	1	
C4716	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1		IC3301	C1AB00000860	IC	1	
C4718	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1		IC3302	AN3742FHN-EB	IC	1	
C4719	EEJK0JS106	E.CAPACITOR 6.3V 10M	1		IC3451	C1AB00001233	IC	1	
C4720	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1		IC3452	C3FBKD000154	IC	1	
C4721,22	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	2		IC3453	C3ABPG000043	SDRAM	1	
C4723-25	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	3		IC3454	C1AB00001222	IC	1	
C5001	ECST0JX476Z	T.CAPACITOR CH6.3V 47U	1		IC3501	C1AB00001140	IC	1	
C5002,03	F1J0J475A006	C.CAPACITOR CH6.3V 1U	2		IC3502,03	C1AB00000647	IC	2	
C5004	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1		IC3505	C1AB00000648	IC	1	
C5005	ECJ0EB1E681K	C.CAPACITOR CH 25V 680P	1		IC3701	AN2903FJQ-V	IC	1	
C5006-11	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	6		IC3801	C1DB00000455	IC	1	
C5012	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1		IC4501	C0FBZH000005	IC	1	
C5013	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1		IC5001	AN3732FJMEFV	IC	1	
C5014	ECJ1VC1H470J	C.CAPACITOR CH 50V 47P	1						
C5021-24	ECJ0EC1H080C	C.CAPACITOR CH 50V 8P	4		Δ IP1001	K5H3123A0010	FUSE	1	
D601	MA111	DIODE	1		L601-03	G1C100K00019	COIL 10UH	3	
D602,03	B0JCEE000002	DIODE	2		L604	VLQ0807K100	COIL 10UH	1	G1C100K00024
D1051	B0JCGF000004	DIODE	1		L605,06	VLQ0807K220	COIL 22UH	2	G1C220K00016
D1052	MA111	DIODE	1		L1001	G1C4R7MA0024	COIL 4.7UH	1	
D1101	MAZ81200LL	DIODE	1		L1011	G1A330D00002	COIL 33UH	1	
D1151	MAZ81600HL	DIODE	1		L1012	G1C4R7MA0024	COIL 4.7UH	1	
D1152	MA111	DIODE	1		L1014	G1C100K00019	COIL 10UH	1	
D1421	B0JCEE000002	DIODE	1		L1021	G1C150MA0024	COIL 15UH	1	
D2001-04	B0JCEE000002	DIODE	4		L1022	G1C4R7MA0024	COIL 4.7UH	1	
D2006	MA2J70400L	DIODE	1		L1023	G1C100K00019	COIL 10UH	1	
D2007	MA3S13300L	DIODE	1		L1025-29	G1C100K00019	COIL 10UH	5	
D2008	B0JCEE000002	DIODE	1		L1031	G1C680MA0024	COIL 68UH	1	
D2012	MA112TX	DIODE	1	MA2J11200L	L1032	G1C4R7MA0024	COIL 4.7UH	1	
D2107	MA110	DIODE	1		L1033	G1C100KA0023	COIL 10UH	1	
D2502	MA3S781D0L	DIODE	1		L1034	G1C4R7MA0031	COIL 4.7UH	1	
D2504	B0JCEE000002	DIODE	1		L1041	G1C150MA0024	COIL 15UH	1	
D3001	MA2ZD14001VT	DIODE	1		L1042	G1C4R7MA0024	COIL 4.7UH	1	
D6503	B0JCEE000002	DIODE	1		L1051	G1C100KA0019	COIL 10UH	1	
D6504	MA3S781D0L	DIODE	1		L1052	G1C100K00019	COIL 10UH	1	
D6505-07	B0JCEE000002	DIODE	3		L1061	G1A330D00002	COIL 33UH	1	
D6508,09	MA3S781D0L	DIODE	2		L1062	G1A101D00008	COIL 100UH	1	
D6510	B0JCEE000002	DIODE	1		L1081	G1C100K00019	COIL 10UH	1	
					L1091	G1C4R7MA0024	COIL 4.7UH	1	
FP601	K1MN21B00016	CONNECTOR	1		L1092	G1C4R7M00016	COIL 4.7UH	1	
FP602	K1MN17B00015	CONNECTOR	1		L2001	G1C100K00019	COIL 10UH	1	
FP603	K1MN21B00016	CONNECTOR	1		L2002	G1C330J00006	COIL 33UH	1	
FP1002	K1MN14A00035	CONNECTOR	1		L2004	G1C100K00019	COIL 10UH	1	
FP2201	K1MN18B00033	CONNECTOR	1		L3001	G1C100K00019	COIL 10UH	1	
FP2202	K1MN10B00032	CONNECTOR	1		L3004	G1C100K00019	COIL 10UH	1	
FP2203	K1MN18B00026	CONNECTOR	1		L3008	G1C100K00019	COIL 10UH	1	
FP2204	K1MN08B00027	CONNECTOR	1		L3009	VLQ0426J120	COIL 12UH	1	G1C120J00005
FP2205	K1MN33B00003	CONNECTOR	1		L3201,02	VLQ0807K100	COIL 10UH	2	G1C100K00024
FP2206	K1MN18A00031	CONNECTOR	1		L3203	G1C100K00019	COIL 10UH	1	
FP3401	K1MN18A00031	CONNECTOR	1		L3204	VLQ0807K100	COIL 10UH	1	G1C100K00024
FP4001	K1MN57B00001	CONNECTOR	1		L3301	G1C100K00019	COIL 10UH	1	
FP5001	K1MN08B00050	CONNECTOR	1		L3304	G1C100K00020	COIL 10UH	1	
					L3307	G1C100K00019	COIL 10UH	1	
IC601	AN2536FHQ	IC	1		L3501	G1C100K00019	COIL 10UH	1	
IC603	NJM78L12UA	IC	1	C0CBAKC00001	L3502	G1C4R7MA0031	COIL 4.7UH	1	
IC1001	C0DBAFA00012	IC	1		L3503-05	G1C330J00006	COIL 33UH	3	
IC1002	C0BBAA000008	IC	1		L3507	G1C330J00006	COIL 33UH	1	
IC1092	C0DBZFZ00003	IC	1		L3510,11	G1C330J00006	COIL 33UH	2	
IC2001	C2DBLJ000017	IC	1		L3512	G1C100K00019	COIL 10UH	1	
IC2002	C0CBABC00104	IC	1		L3513	G1C4R7MA0031	COIL 4.7UH	1	
IC2004	C0FBBD000081	DAC	1		L3701-03	G1C100K00019	COIL 10UH	3	
IC2005	C3EBFG000008	EEPROM	1		L3801-03	G1C100K00019	COIL 10UH	3	
IC2006	C1ZBZ0001483	IC	1		L4502	G1C100K00019	COIL 10UH	1	
IC2007	C0BBBA000059	IC	1		L4701	G1C100K00025	COIL 10UH	1	
IC2009	C0CBAA000012	IC	1		L4702,03	G1C100K00019	COIL 10UH	2	
IC2010	C0CBCAC00001	IC	1		L5001	G1C101K00019	COIL 100UH	1	
IC2011	C0EBD0000019	IC	1		L5002,03	G1C100K00019	COIL 10UH	2	
IC2012	C0ABAA000043	IC	1						
IC2014	C0CBABC00077	IC	1		LB1001	J0JHC0000018	FILTER	1	
IC2015	C0ABAA000043	IC	1		LB2001,02	J0JAC0000011	FILTER	2	
IC2201	C0GBG0000022	IC	1		LB3001,02	J0JCC0000085	FILTER	2	
IC3001	C1AB00000922	IC	1		LB3003	J0JAD0000002	FILTER	1	
IC3003	C0JBAE000140	IC	1		LB3401-03	J0JAD0000002	FILTER	3	
IC3005	BH7086KV	IC	1	C1ZBZ00001649	LB3701-03	J0JBC0000042	FILTER	3	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
PP3001	K1KA60A00104	CONNECTOR (MALE)	1		R616-18	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3	
PS3004	K1KBC0A00037	CONNECTOR (FEMALE)	1		R619-22	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	4	
Q601,02	B1ACGD000006	TRANSISTOR	2		R623,24	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	2	
Q604,05	B1ACGD000006	TRANSISTOR	2		R625-28	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	4	
Q608	B1ACGD000006	TRANSISTOR	1		R629	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
Q610,11	2SD2216J0L	TRANSISTOR	2		R630	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
Q612	B1HFCFA00010	TRANSISTOR	1		R631	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
Q1011	B1ZBZ0000018	TRANSISTOR	1		R632,33	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
Q1021	B1ZBZ0000018	TRANSISTOR	1		R634	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
Q1022	B1DFBC000005	TRANSISTOR	1		R635	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
Q1031	B1ZBZ0000018	TRANSISTOR	1		R636	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
Q1041	B1ZBZ0000018	TRANSISTOR	1		R637	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
Q1042	B1DFBC000005	TRANSISTOR	1		R642	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
Q1051	B1BDBD000020	TRANSISTOR	1		R643	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
Q1052	B1ADCF000059	TRANSISTOR	1		R646	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
Q1053	2SD2216J0L	TRANSISTOR	1		R647	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
Q1054	XP1401	TRANSISTOR-RESISTOR	1		R656-58	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
Q1055	2SD2216J0L	TRANSISTOR	1		R1001	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
Q1056	2SB1462JHL	TRANSISTOR	1		R1003	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	1	
Q1061,62	B1ZBZ0000027	TRANSISTOR	2		R1005	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
Q1092	B1BDBD000020	TRANSISTOR	1		R1008	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
Q1101	2SB1462JHL	TRANSISTOR	1		R1010	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
Q1401	B1ACGD000006	TRANSISTOR	1		R1011	ERJ6RBB820	M.RESISTOR CH 1/10W 6.8K	1	
Q1402	XP1501	TRANSISTOR-RESISTOR	1		R1012	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
Q2001	B1ACGD000006	TRANSISTOR	1		R1013	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
Q2002	XP4601	TRANSISTOR-RESISTOR	1		R1014	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
Q3002-04	2SD2216J0L	TRANSISTOR	3		R1015	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
Q3501	2SC4627J0L	TRANSISTOR	1		R1020	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
Q3502	B1ACGD000006	TRANSISTOR	1		R1021	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
Q3503	2SB1462JHL	TRANSISTOR	1		R1022	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
Q3507	2SB1462JHL	TRANSISTOR	1		R1023	ERJ3RBD361	M.RESISTOR CH 1/16W 360	1	
Q3508	2SD2216J0L	TRANSISTOR	1		R1024	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
Q3509	2SC4627J0L	TRANSISTOR	1		R1025	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
Q3510	B1HFCFA00003	TRANSISTOR	1		R1030	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
Q3701-03	2SD1979	TRANSISTOR	3		R1031	ERJ6RBB332	M.RESISTOR CH 1/10W 3.3K	1	
QR601	B1GBAFL0001	TRANSISTOR-RESISTOR	1		R1032	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
QR602	XP0431400L	TRANSISTOR-RESISTOR	1		R1033	ERJ3RBD151	M.RESISTOR CH 1/16W 150	1	
QR604	B1GBAFL0001	TRANSISTOR-RESISTOR	1		R1034	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
QR605	B1GBCFL0022	TRANSISTOR	1		R1040	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
QR1001	B1GDBFJ0002	TRANSISTOR	1		R1041	ERJ6RBB152	M.RESISTOR CH 1/10W 1.5K	1	
QR1004	B1GDCFJA0009	TRANSISTOR	1		R1042	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
QR1050	B1GBAFNN0001	TRANSISTOR	1		R1043	ERJ3RBD511	M.RESISTOR CH 1/16W 510	1	
QR1101	B1GBBFJN0001	TRANSISTOR	1		R1044	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
QR1421	B1GBBFJN0001	TRANSISTOR	1		R1045	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
QR2001	B1GHCFJA0003	TRANSISTOR	1		R1050	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
QR2002	B1GDCFNL0002	TRANSISTOR	1		R1051	ERJ6RBB273	M.RESISTOR CH 1/10W 27K	1	
QR2003	B1GBCFNN0023	TRANSISTOR	1		R1052	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
QR2005	UNR9112J0L	TRANSISTOR	1		R1053	ERJ3RBD271	M.RESISTOR CH 1/16W 270	1	
QR2009	B1GBCFGJ0001	TRANSISTOR	1		R1054	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	1	
QR2010	B1GHCFJA0003	TRANSISTOR	1		R1055	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
QR3401	UNR9115J0L	TRANSISTOR	1		R1057	ERJ2RHD123	M.RESISTOR CH 1/16W 12K	1	
QR3402	B1GBAFL0001	TRANSISTOR-RESISTOR	1		R1058	ERJ2RHD681	M.RESISTOR CH 1/16W 680	1	
QR3502	UNR921J0L	TRANSISTOR	1		R1059	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
QR3701	UNR9112J0L	TRANSISTOR	1		R1101	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
QR3702	UNR9213J0L	TRANSISTOR	1		R1102,03	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2	
R521	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1		R1104	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R522	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1		R1105	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R525	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1		R1107	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	1	
R526	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1		R1108	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R529-32	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	4		R1109	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R602,03	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2		R1111	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R604	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1		R1112	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R605	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	1		R1121	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R606	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1		R1122	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R607	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1		R1131	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R608	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1		R1132	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R609	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1		R1141	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R612	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1		R1142	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R613	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1		R1151	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R614	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1		R1152	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
					R1153	ERJ2RHD123	M.RESISTOR CH 1/16W 12K	1	
					R1154	ERJ2RHD473	M.RESISTOR CH 1/16W 47K	1	
					R1155	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
					R1156	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
					R1157	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1193	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1251	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R1252-56	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	5	
R1351	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1401	ERJ2RHD332	M.RESISTOR CH 1/16W 3.3K	1	
R1402,03	ERJ2RHD683X	M.RESISTOR CH 1/16W 68K	2	
R1404	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R1405	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1406	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R1413	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R1421	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1	
R1422	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R2001	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2002,03	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R2004	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2005	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2006	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2007,08	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R2009	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2010	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2011	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2012	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R2013	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R2015	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R2016	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2017	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R2018	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2019	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2020	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2021	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2022	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2023	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R2024	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2025	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2026	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2027	ERJ8GEYG330	M.RESISTOR CH 1/8W 33	1	
R2028	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2029-31	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R2032,33	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2034	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2035	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2036,37	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R2038	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2039	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R2040	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R2042-44	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R2045	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2046	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R2048	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2049	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2050	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R2051	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R2052	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2053	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2055	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2056	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2057	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2058	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R2059	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2060	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2061	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R2062,63	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R2064	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R2065	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	1	
R2066	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R2067	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2068	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R2069	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	1	
R2070	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2071	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2072	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2075	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2076,77	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2078	ERJ2GEJ181	M.RESISTOR CH 1/16W 180	1	
R2079	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2080	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2081-83	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	3	
R2084	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R2085,86	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2088	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R2089-91	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	3	
R2092	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2094	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2097	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2098	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2099	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2100	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R2101	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2102-05	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	4	
R2106	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R2107,08	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	2	
R2110-12	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R2113-15	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	3	
R2116	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2117	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2118	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2119,20	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R2122	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2123	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2124	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R2126,27	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R2129-31	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	3	
R2132	ERJ2RHD183	M.RESISTOR CH 1/16W 18K	1	
R2134	ERJ2RHD333	M.RESISTOR CH 1/16W 33K	1	
R2137	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2138	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	1	
R2139-41	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	3	
R2142	ERJ2GEJ394	M.RESISTOR CH 1/16W 390K	1	
R2143,44	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	2	
R2145	ERJ2GEJ684	M.RESISTOR CH 1/16W 680K	1	
R2150	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R2155	ERJ2RHD683	M.RESISTOR CH 1/16W 68K	1	
R2161	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2162	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2163	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R2164	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2201	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R2202	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2203	ERJ2GEJ823	M.RESISTOR CH 1/16W 82K	1	
R2204	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R2205-08	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	4	
R2209	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R2210	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2211	ERJ8RQJR27	M.RESISTOR CH 1/8W 0.27	1	
R2212	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2213	ERJ8RQJR27	M.RESISTOR CH 1/8W 0.27	1	
R2214	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R2215	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1	
R2216	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R3001-03	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	3	
R3006	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3009	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R3014	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3015	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3020	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R3021	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R3022	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	1	
R3023	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3024	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3025	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3026	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3027	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3028	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R3029	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3030	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3031	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3037	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3040	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3047	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3054	ERJ2RHD123	M.RESISTOR CH 1/16W 12K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3060	ERJ2RHD133	M.RESISTOR CH 1/16W 13K	1	
R3075	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3089,90	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	2	
R3101	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3201	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3203	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3204	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3205	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R3206	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3207-09	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	3	
R3211,12	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	2	
R3213,14	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
R3215	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3217	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3219	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3220	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3221	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3301	ERJ2RHD222	M.RESISTOR CH 1/16W 2.2M	1	
R3303	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3304	ERJ2RHD302	M.RESISTOR CH 1/16W 3K	1	
R3306	ERJ2RHD391	M.RESISTOR CH 1/16W 390	1	
R3307	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3308	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3309	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	1	
R3311,12	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	2	
R3313	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3314	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3317	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3318,19	ERJ2GEJ121	M.RESISTOR CH 1/16W 120	2	
R3321	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R3322	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3323	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3324	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3327	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3328	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3335	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	1	
R3336	ERJ2GEJ162	M.RESISTOR CH 1/16W 1.6K	1	
R3402	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3403	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3404	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3405	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R3406	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3407	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3408	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R3409,10	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2	
R3411,12	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	2	
R3413	ERJ2GEJ560	M.RESISTOR CH 1/16W 56	1	
R3414	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R3415	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R3417	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3418	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3419	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3420,21	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R3422	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R3423-25	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3	
R3427	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R3430	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3432	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3434,35	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R3441	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R3501	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R3503	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R3504	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3505	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3506	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3510	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3513	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3514	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3520	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3522	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3523	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R3524	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R3525	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3526	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3528	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3529	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3530	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3533	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R3534	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3536	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3537	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	1	
R3538	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R3539	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3541	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3542	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3543	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3544	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R3559	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R3701	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R3702	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3703	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3704	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R3705	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3706	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3707	ERJ2GEJ391	M.RESISTOR CH 1/16W 390	1	
R3708	ERJ2GEJ750	M.RESISTOR CH 1/16W 75	1	
R3711-13	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	3	
R3799	ERJ2GEJ334	M.RESISTOR CH 1/16W 330K	1	
R3802	ERJ2GEJ270	M.RESISTOR CH 1/16W 27	1	
R3803,04	ERJ2RHD123	M.RESISTOR CH 1/16W 12K	2	
R3806-09	ERJ2RHD560	M.RESISTOR CH 1/16W 56	4	
R3810-12	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	3	
R3901	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3904	ERJ2GEJ470	M.RESISTOR CH 1/16W 47	1	
R4501	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	1	
R4504	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4508,09	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	2	
R4510,11	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	2	
R4701,02	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R4703,04	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2	
R4707,08	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	2	
R4709,10	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R4712,13	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	2	
R4714-16	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	3	
R4799	ERJ2GEJ681	M.RESISTOR CH 1/16W 680	1	
R5003	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	1	
R5004	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R5005	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5006	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5007,08	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R5009-12	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	4	
R5015	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6003,04	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	2	
R6008	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
RA2001	EXB28V473J	COMBI.R-R 47K	1	
RA2002,03	EXB28V102J	COMBI.R-R 1K	2	
RA2004	EXB24V331J	COMBI.R-R 330	1	
RA2005	EXB24V332J	COMBI.R-R 3.3K	1	
T1051	G5DYZ0000005	DC/DC TRANSFORMER	1	
X2001	HQJ270500024	CRYSTAL OSCILLATOR	1	
X2002	HQJ327200051	CRYSTAL OSCILLATOR	1	
X3201	HQJ245500021	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VSC5090	HEAD AMP SHIELD CASE	1	
■ E2	VEP23525A	CAMERA C.B.A.	1 (RTL)	
C101	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C102	ECJ2YB1C474K	C.CAPACITOR CH 16V 0.47U	1	
C103	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q304	B1ADCF000059	TRANSISTOR	1		R368	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
Q305	XP1501	TRANSISTOR-RESISTOR	1		R369	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
Q701,02	2SB970X	TRANSISTOR	2		R370	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
Q703	2SD2216JOL	TRANSISTOR	1		R371,72	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
Q704	R2T2SD601AX	TRANSISTOR	1	2SD0601AOL	R373,74	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
Q705	2SB970X	TRANSISTOR	1		R375	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
					R376	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
QR301	B1GDBEJG0002	TRANSISTOR	1		R377,78	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	2	
QR303	XP0121500L	TRANSISTOR-RESISTOR	1		R379	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
QR701	UNR9211J0L	TRANSISTOR	1		R380	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
QR703	UNR9211J0L	TRANSISTOR	1		R381	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
					R382	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R101	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1		R383	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R103,04	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2		R384	ERJ2RHD161	M.RESISTOR CH 1/16W 160	1	
R105	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1		R385	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R106-08	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3		R386	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	1	
R109,10	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	2		R387	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R111	ERJ2GEJ181	M.RESISTOR CH 1/16W 180	1		R388	ERJ2RHD332	M.RESISTOR CH 1/16W 3.3K	1	
R112	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1		R389	ERJ2RHD682	M.RESISTOR CH 1/16W 6.8K	1	
R113	ERJ2GEJ392	M.RESISTOR CH 1/16W 3.9K	1		R390	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R114	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1		R391,92	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R115	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1		R399,00	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	2	
R116	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1		R420	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R117-19	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	3		R427	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	1	
R120	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1		R428	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R121	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1		R429,30	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	2	
R122-25	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	4		R701	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	1	
R126	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1		R702	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R128,29	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2		R703,04	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	2	
R131,32	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2		R705	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R134	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1		R706	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R137	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1		R707	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R138	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1		R708	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R140	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1		R710	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R141,42	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	2		R711	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R148-53	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6		R712	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R304	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1		R713	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R306	ERJ2RHD271	M.RESISTOR CH 1/16W 270	1		R714	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R307	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1		R715	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R308,09	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	2		R716-18	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	3	
R310,11	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2		R719	ERJ2GEJ274	M.RESISTOR CH 1/16W 270K	1	
R312	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1		R720	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R313	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1		R721	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R314	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1		R722	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R315	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1		R723,24	ERJ6RBB472	M.RESISTOR CH 1/10W 4.7K	2	
R316	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1		R725,26	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R317	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1		R727	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R318	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1		R728	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R319	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1		R729	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R320	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1		R730	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R321	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1		R731	ERJ2GEJ124	M.RESISTOR CH 1/16W 120K	1	
R322	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1		R732	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R323,24	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	2		R733	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R326	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1		R734,35	ERJ3GEYJ2R2	M.RESISTOR CH 1/16W 2.2	2	
R327	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1		R736	ERJ6GEYJ3R9	M.RESISTOR CH 1/10W 3.9	1	
R328	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1		R737	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R329-34	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	6		R738	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R335	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1		R739	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R336	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1		R740	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R338	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1		R741	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R339	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1		R742,43	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	2	
R340,41	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2		R744	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R342	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1		R745	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R343	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1		R746	ERJ2GEJ155	M.RESISTOR CH 1/16W 1.5M	1	
R345	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1		R747	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R346	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1		R748	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R347,48	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	2		R749	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R349	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1		R750	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R350	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1		R751	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R351	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1		R752	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R352	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1		R753	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R354,55	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	2		R754	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R357	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1		R755	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R359-66	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	8		R756	ERJ2GEJ124	M.RESISTOR CH 1/16W 120K	1	
R367	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	1		R757	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R758	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R759	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R760,61	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	2	
R762	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R763	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R764	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R765	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R766	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R767	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1	
R768	ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	1	
R769	ERJ2GEJ684	M.RESISTOR CH 1/16W 680K	1	
R770	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R771	ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	1	
R772	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R773	ERJ2GEJ334	M.RESISTOR CH 1/16W 330K	1	
R774	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R775	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R776	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R777	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R778	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R779	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R780	ERJ2GEJ274	M.RESISTOR CH 1/16W 270K	1	
R781	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R782-85	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	4	
R786	ERJ2GEJ393	M.RESISTOR CH 1/16W 39K	1	
R787	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R788	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R789	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R790-92	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	3	
R793	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R794	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R795	ERJ2GEJ564	M.RESISTOR CH 1/16W 560K	1	
R796	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R797	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	1	
R798,99	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	2	
R6791	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
W102-05	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	4	
W306	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W308	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
W311	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
X101	H1A3155B0002	CRYSTAL OSCILLATOR	1	
X302	H0J270500024	CRYSTAL OSCILLATOR	1	
■ E3	VEK9239	MIC ASS'Y	1 (RTL)	
C4801	F1G1C333A004	C.CAPACITOR CH 16V 0.033U	1	
C4802,03	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	2	
C4804	ECJ0EB1E331K	C.CAPACITOR CH 25V 330P	1	
C4805	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4806	F1G1C333A004	C.CAPACITOR CH 16V 0.033U	1	
C4807	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C4808	ECJ0EB1E331K	C.CAPACITOR CH 25V 330P	1	
C4809	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4810	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C4814	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C4816	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C4817	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
C4830	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
FP4801	K1MN06B00070	CONNECTOR	1	
IC4801	C0ABBB000081	IC	1	
M4801-04	WM-61B102A	ECM	4	
Q4805	2SD2216J0L	TRANSISTOR	1	
Q4810,11	2SD2216J0L	TRANSISTOR	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4801-04	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	4	
R4805	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R4806,07	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	2	
R4808	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R4809,10	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	2	
R4811	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	1	
R4812,13	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	2	
R4814	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	1	
R4815,16	ERJ2GEJ682	M.RESISTOR CH 1/16W 6.8K	2	
R4817,18	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	2	
R4823	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4824	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R4825	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R4826,27	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	2	
R4828	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R4839	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
		MISCELLANEOUS		
	VMT1161	MIC DUMPER	1	
	VWJ1453	MIC CONNECTION FLAX	1	
■ E4	VEP04767A	MIC JACK C.B.A.	1 (RTL)	
C4901,02	ECJ0EB1E222K	C.CAPACITOR CH 25V 2200P	2	
C4903	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C4905	F3F0J226A007	T.CAPACITOR CH6.3V 22U	1	
C4908	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C4910	F3F0J226A007	T.CAPACITOR CH6.3V 22U	1	
C4912	F1H0J105A003	C.CAPACITOR CH6.3V 5M	1	
C4914	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4915	F1G1C223A004	C.CAPACITOR CH 16V 0.022U	1	
C4916	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C4917	F1G1C223A004	C.CAPACITOR CH 16V 0.022U	1	
C4925	F3E0J106A005	T.CAPACITOR CH6.3V 10U	1	
C4955	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
FL4901,02	J0MAB0000110	FILTER	2	
FP4901	K1MN27B00008	CONNECTOR	1	
FP4902	K1MN17B00015	CONNECTOR	1	
FP4903	K1MN06A00036	CONNECTOR	1	
JK4901	K2HC105E0003	JACK	1	
Q4901	B1ABCF000087	TRANSISTOR	1	
Q4902	B1ADCF000052	TRANSISTOR	1	
Q4903	B1ABCF000087	TRANSISTOR	1	
Q4904	B1ADCF000052	TRANSISTOR	1	
Q4905-07	B1ABCF000077	TRANSISTOR	3	
QR4903,04	B1GBCFL0022	TRANSISTOR	2	
R4901	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R4903	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R4904	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R4905	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R4906	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4907	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R4908	ERJ6GEYG563	M.RESISTOR CH 1/10W 56K	1	
R4909	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4910	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4911	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R4912	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	1	
R4913	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4914	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R4915	ERJ6GEYG563	M.RESISTOR CH 1/10W 56K	1	
R4916	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4917	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4918	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	

Components identified with the mark Δ have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4919	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R4920	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R4923	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R4924	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4925	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4926	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4927	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R4928	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4929	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4930	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4931,32	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	2	
R4933	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
■ E5	VEP22305B	FRONT C.B.A.	1 (RTL)	
C401	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	1	
C402	F1J0J475A006	C.CAPACITOR CH6.3V 1U	1	
C403	ECST0JY106Z	T.CAPACITOR CH6.3V 10U	1	
C404	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	1	
C6401	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	1	
C6402	F3F0J226A007	T.CAPACITOR CH6.3V 22U	1	
C6403	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	1	
D6801	B3AAB0000052	TALLY LED	1	
FP401	K1MN14B00048	CONNECTOR 14P	1	
FP402	K1MN06B00070	CONNECTOR	1	
IC401	M52944FP	IC	1	C1AB00000794
IR6401	VEK8283	REMOTE CONTROL RECEIVER	1	B3RZB0000001
L401	G1C100K00019	COIL 10UH	1	
LB6401	J0JAD0000002	FILTER	1	
LB6402	J0JCC0000087	SYSTEM E TERMINAL	1	
LB6403	J0JHC0000032	FILTER	1	
QR401	UNR9212J0L	TRANSISTOR	1	
R401	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6402	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R6803	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
S6505	K9AA01500009	SWITCH	1	
		MISCELLANEOUS		
	VWJ1449	FRONT CONNECTION FLEX	1	
	VGQ4592	AWT HOLDER	1	
	VDL0397	IR CUT FILTER	1	
	VGQ3306	IR PLATE SPACER R	1	
■ E6	VEP09119A	AV JACK C.B.A.	1 (RTL)	
C482,83	ECST0GY226	T.CAPACITOR CH 4V 22U	2	
C2501	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C3951,52	ECJ0EB1E472K	C.CAPACITOR CH 25V 4700P	2	
FL3952	J0MAB0000085	FILTER	1	
FP4971	K1MN27B00008	CONNECTOR	1	
FP4972	K1MN33B00003	CONNECTOR	1	
FP4973	K1MN05B00028	CONNECTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC481	L2ES00000005	IC	1	
JK2501	K2HC104E0002	HEADPHONE JACK	1	
JK3951	K2HC106B0005	JACK	1	
L481	G1C100K00019	COIL 10UH	1	
Δ LB2501,02	VLF1315A102	FILTER	2	J0JHC0000015
LB2503,04	J0JCC0000089	FILTER	2	
LB3951	J0JCC0000087	SYSTEM E TERMINAL	1	
LB3952-54	J0JAD0000002	FILTER	3	
LB3955	J0JHC0000032	FILTER	1	
R2501,02	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	2	
R3955	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
		MISCELLANEOUS		
	VWJ1451	AV-DV FLEX	1	
	VWJ1450	MIC JACK-AV FLEX	1	
	VWJ1454	AV-CAMERA FLEX	1	
■ E7	VEP27213B	DV JACK C.B.A.	1 (RTL)	
C451	F3F0J226A007	T.CAPACITOR CH6.3V 22U	1	
C453	ECJ0EB1E471K	C.CAPACITOR CH 25V 470P	1	
C455	ECJ0EB1E471K	C.CAPACITOR CH 25V 470P	1	
C456	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C458	F1L1A2260013	C.CAPACITOR CH 10V 22U	1	
C459	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C460	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
C461	ECJ0WB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C462	ECJ0EB1E222K	C.CAPACITOR CH 25V 2200P	1	
C464	ECJ0EB1E222K	C.CAPACITOR CH 25V 2200P	1	
C465	F1L1A2260013	C.CAPACITOR CH 10V 22U	1	
C467,68	ECJ0EB1E471K	C.CAPACITOR CH 25V 470P	2	
C470	ECJ1VB0J105K	C.CAPACITOR CH 35V 1M	1	
C480,81	ECST0GY226	T.CAPACITOR CH 4V 22U	2	
C3953	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	1	
D3952,53	B0BC6R100014	DIODE	2	
FP451	K1MN57B00001	CONNECTOR	1	
FP453	K1MN33B00003	CONNECTOR	1	
FP454	K1MN05B00046	CONNECTOR	1	
IC451	C0JBAS000065	IC	1	
IC452	C0ABCA000042	IC	1	
IC453	C0ABAA000046	IC	1	
IC480	L2ES00000006	IC	1	
JK3801	VJJ0568	DV JACK	1	
L451,52	G1C100K00019	COIL 10UH	2	
L480	G1C100K00019	COIL 10UH	1	
LB3961	J0JBC0000052	FILTER	1	
LB3962	J0JAC0000014	FILTER	1	
LB3963	J0JBC0000052	FILTER	1	
R452	ERJ2GEJ274	M.RESISTOR CH 1/16W 270K	1	
R453	ERJ2RHD472	M.RESISTOR CH 1/16W 4.7K	1	
R454,55	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	2	
R456	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R457	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R458	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R459	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R460	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	
R461,62	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	2	
R463	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	1	

Panasonic

Service Manual

ORDER NO. VMD0109026C8

Service Manual

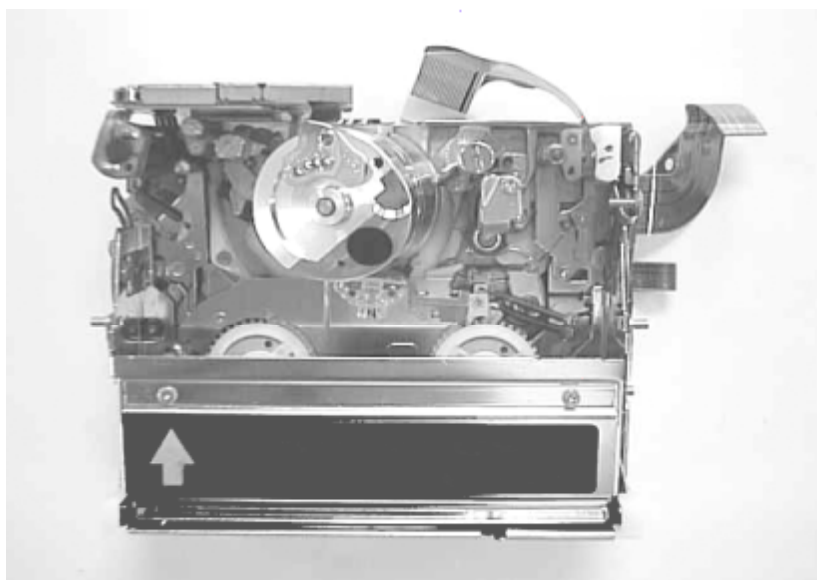
Digital Video Camera/Recorder

Panasonic Mini DV

- Q-MECHANISM

(Including Q1, Q2&Q3)

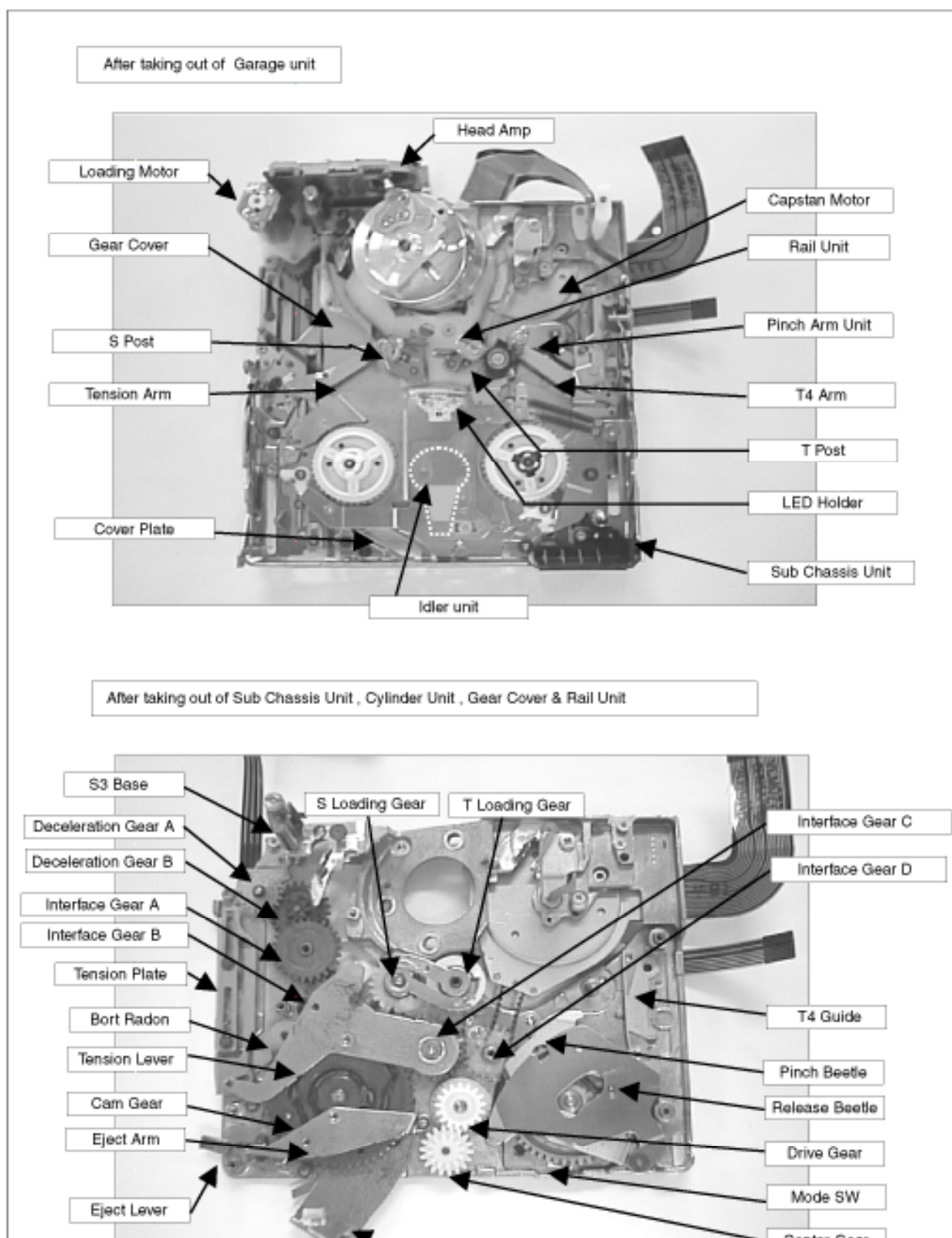
*Disassembly/Assembly
Procedures
Adjustment Procedures*



Panasonic

1.1 UPPER SIDE

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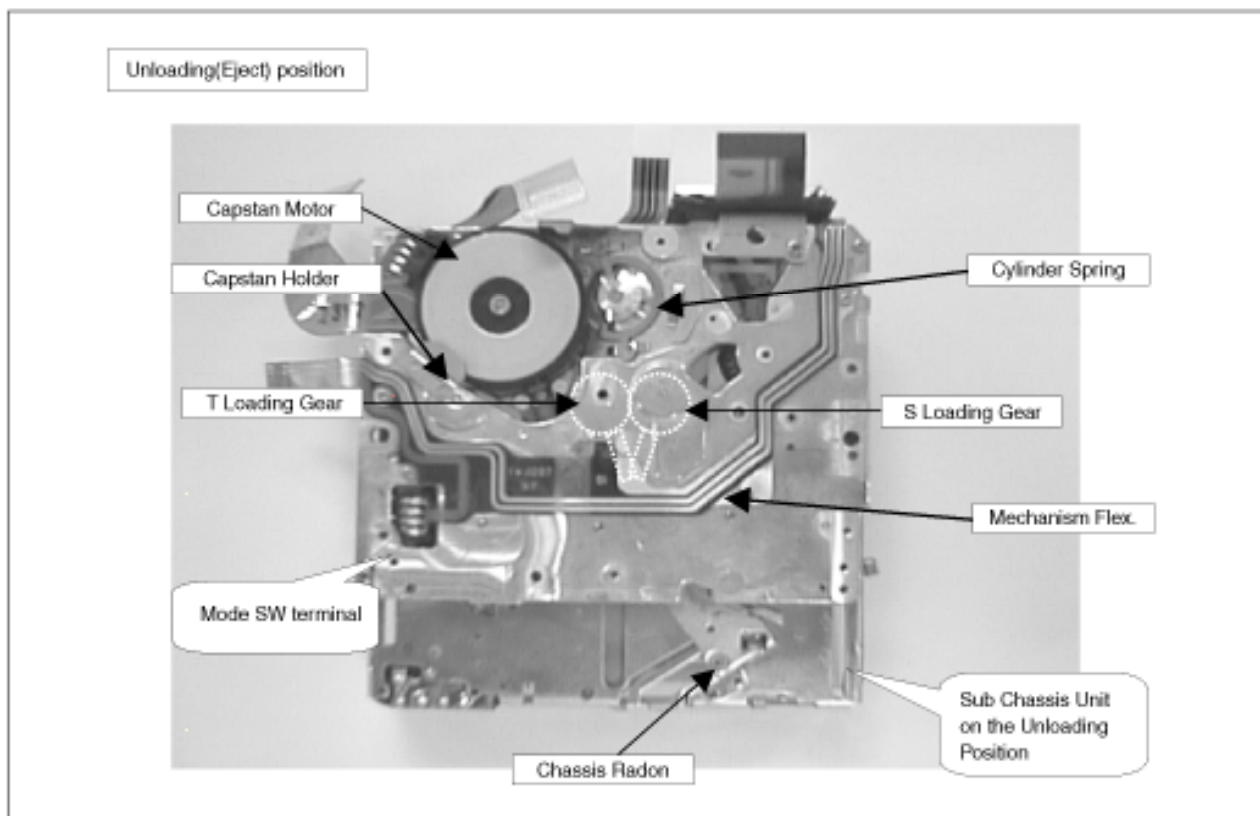




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1.2 BOTTOM SIDE

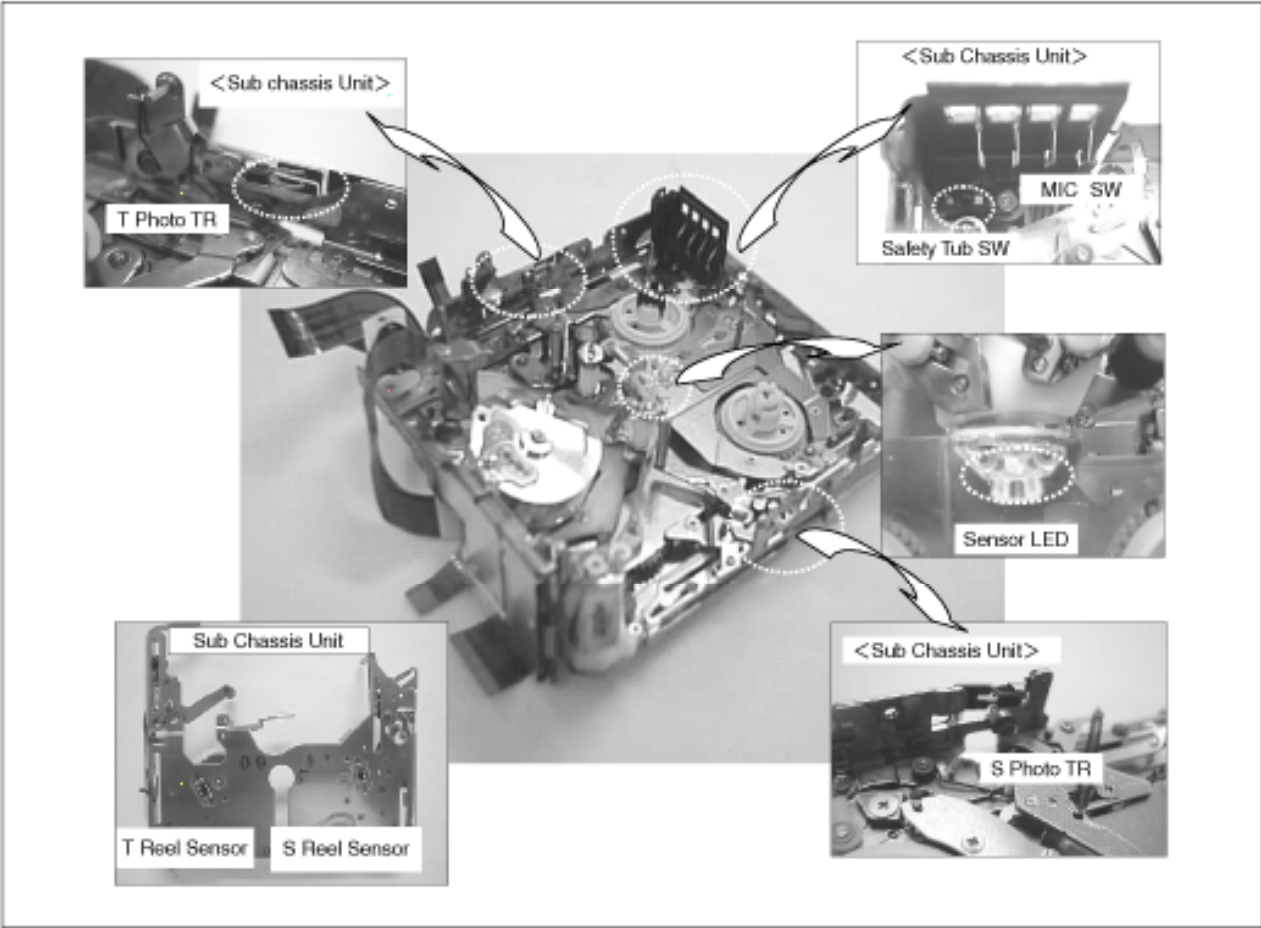
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1.3 SENSOR POSITION

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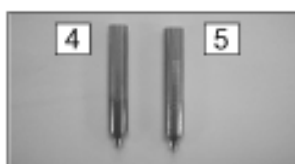
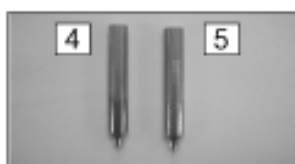


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2.1 FIXTURES& TOOLS FOR DISASSEMBLY& ASSEMBLY

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No.	Parts number	Parts Name	Q'ty	New	Remarks
1	VFK1390	Precision Driver	1	•	
2	VFK1444	Gear Driver	1	•	
3	VFK1444Q2	Gear Driver for Q2 & Q3mecha.	1	•	
4	VFK1650	Cut Washer Jig(0.86)	1	•	
5	VFK1649	Cut Washer Jig(0.65)	1	•	
6	VFK1024	Molytone Grease	1	•	

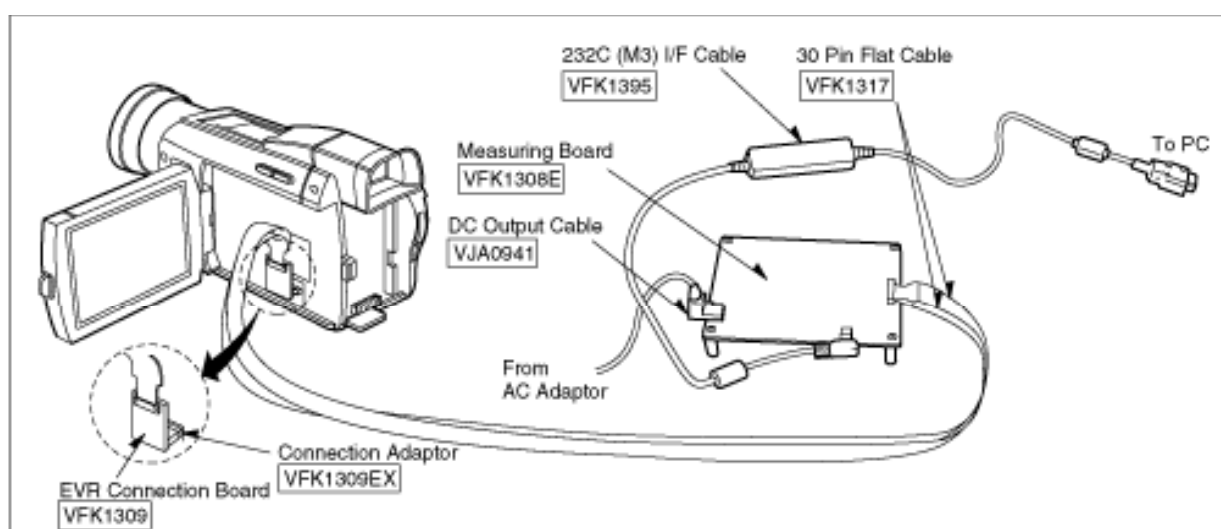
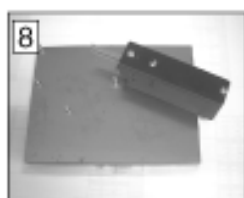


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2.2 FIXTURES&TOOLS FOR MECHANICAL ADJUSTMENT

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No.	Parts number	Parts Name	Q'ty	New	Remarks
7	VFK1278	Post Adjustment Driver	1	•	
8	VFK1638	Capstan Tilt Adj. Jig	1	•	
9	VFK1641	Envelope Detecor Board	1	•	
10	VFM3110EDS(PAL)	DV Alignment Tape	1	--	or VFM3010EDS(NTSC)
11	VFK1395	232C(M3) I/F Cable	1	--	"TATSUJIN" system
12	VFK1308E	Measuring Board	1	--	"TATSUJIN" system
13	VFK1309	EVR Connecor Board	1	--	"TATSUJIN" system
14	VFK1309EX	Connection Adaptor		--	"TATSUJIN" system
15	VFK1317	30pin Flat Cable	2	--	or VFK1517(New - 300mm) "TATSUJIN" system
16	VJA0941	DC Output Cable	1	--	"TATSUJIN" system



2.3 MAINTENANCE FOR CAPSTAN TILT ADJUSTMENT JIG.

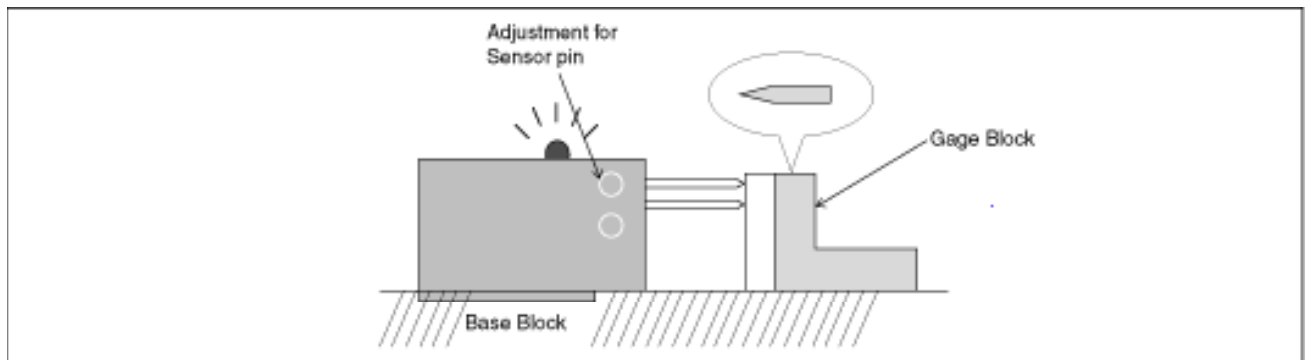
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1. Keep applying oil for preventive oxidation on base block.

Glove should be used when you apply oil.

2. Do not apply pressure to this jig.
3. If Brightness of LED become weak, Battery (SUM4 X 2) in the top of box should be changed.
4. Inspect sensor pin regularly as following.
 - A. Put Gage Block to sensor pin.
 - B. Confirm LED is lit.

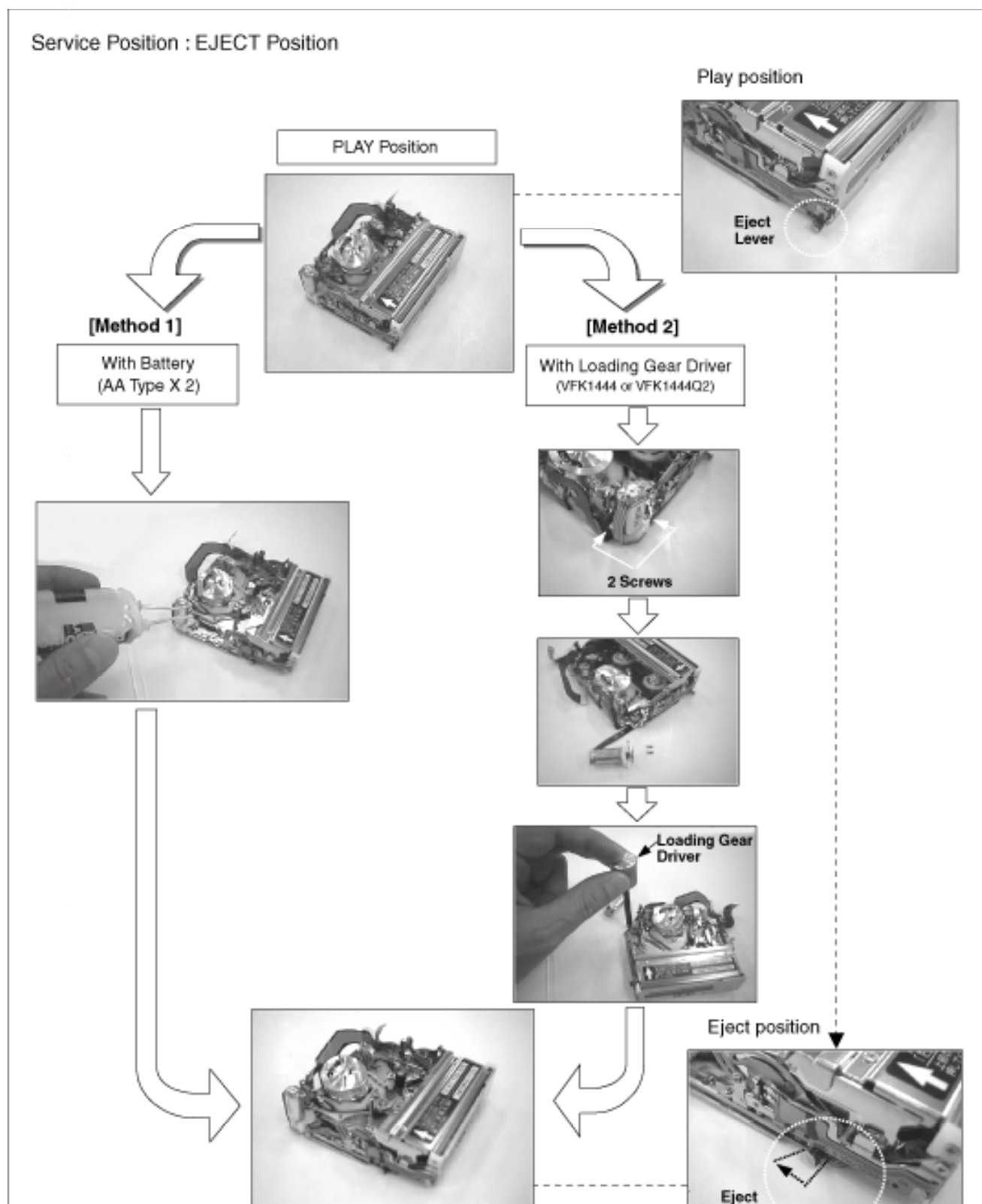
If not, adjust sensor pin by rotating a screw.

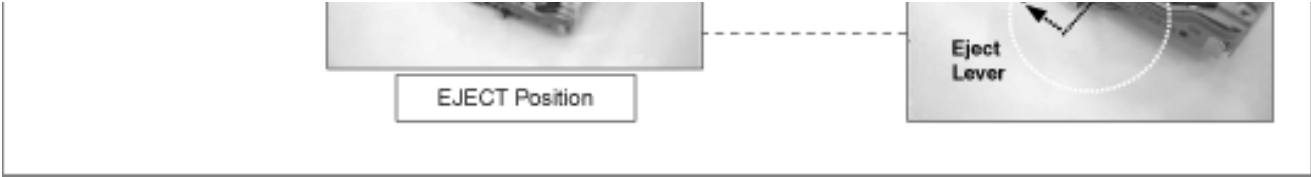


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3.1 PREPARATION FOR DISASSEMBLY

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3.2 DISASSEMBLY PROCEDURE

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No.	Item	Fig.	Procedure
1	Cassette Up Unit.	Fig. D1-1	1) Remove 3 screws. (Q1 &2 have 4 screws)
		Fig. D1-2	2) Take coupling portion off from both S &T sides.
*2	H Amp Unit./(Only Q1 & Q2)	Fig. D2-1	1) Remove a screw from Shield case.
		Fig. D2-2	2) Take Cylinder Flex. From connector.
		Fig. D2-3	3) Remove a screw from H Amp Angle.
3	Cylinder Unit & RT Flex. Flame.	Fig. D3-1	1) Remove a screw from RT Flex. Flame.
		Fig. D3-2	2) Remove 3 screws and then take Cylinder Spring out.
		Fig. D3-3	3) Remove a screw and take RT Flex. Flame out.
4	LED Holder, Cover plate & Idler U.	Fig. D4-1	1) Pull up and remove LED Holder.
		Fig. D4-2	2) Move LED Flat Cable out of position and unhook 2 springs.
		Fig. D4-3	3) Remove 5 screws and remove Cover Plate & Idler U.
5	Sub Chassis Unit	Fig. D5-1	1) Remove 4 screws.
		Fig. D5-2	2) Remove a screw and unhook a spring from Pinch Arm.
6	Pinch Arm & Center Gear	Fig. D6-1	1) Remove Cut Washer and take Pinch Arm out. 2) Take Center Gear out.
		Fig. D6-2	3) Take Center Gear Spacer out.
7	Rail Unit	Fig. D7-1	1) Make half loading until / Connection Arm comes out.
		Fig. D7-2	2) Disconnect Connection Arms. a) Hold Loading Gear side. b) Disconnect connection arms.
		Fig. D7-3	3) Remove 4 screws.
8	T-Loading Gear & S-Loading Gear	Fig. D8	1) Take T-Loading Gear out. 2) Remove Cut Washer on S-Loading Gear and take S-Loading Gear out. * Removed Cut Washer can not be used again.
9	Gear Cover	Fig. D9	1) Remove a screw and slide Gear Cover to take out.
10	Pinch Beetle & Release Beetle	Fig. D10	1) Remove a washer and take Pinch Beetle and Release Beetle out together.
11	Tension Lever & Eject Arm.	Fig. D11	1) Remove a screw and take Tension Lever out. 2) Remove a washer and take Eject Arm out.
12	Interface Gears	Fig. D12	1) Remove 4 Gears.
13	Cam Gear	Fig. D13	1) Remove Cam Gear.

14	Chassis Radon	Fig. D14	1) Remove a washer.
15	Boat Radon	Fig. D15	1) Remove Boat radon.
16	Drive Gear	Fig. D16	1) Remove Drive Gear and a White Waher underneath.
17	Capstan Holder & Capstan Motor	Fig. D17-1	1) Remove 2 screws and take Capstan Holder out. * It is not necessary to remove 2 screws for New Capstan Holder. Because it shaps screw.
		Fig. D17-2	2) Remove 3 screws and take Capstan Motor out downword.
18	Loading Motor unit & Mechanism Interface Flex.	Fig. D18-1	1) Remove 2 screws and take Loading Motor Unit out.
		Fig. D18-2	2) Remove 4 screws and dissolder at Mode Sw.
*19	Mode Switch , Deceleration Gears & Tension Plate.	Fig. D19	1) Take Mode Sw out. 2) Remove a washer and take Deceleration Gear (A) out. 3) Take Deceleration Gear (B) out. 4) Remove 2 washers and take Tension Plate.
*20	T4 Guide , Eject Lever , Pulley Cover & Pulley.	Fig. D20-1	1) Remove a screw and take T4 Guide out.
		Fig. D20-2	2) Remove a washer and take Eject Lever out.
		Fig. D20-3	3) Remove 2 screw and take Pulley Cover out. 4) Take Pulley out.
*21	S3 Base U.	Fig. D21	1) Remove a screw for S3 adjustment and take S3 Base U.

* 1) Procedure 2 for H.Amp Unit is applied only Q1 & Q2 / mechanism. 2) Procedure 19 - 21 can be changed in order.

Fig. D1-1

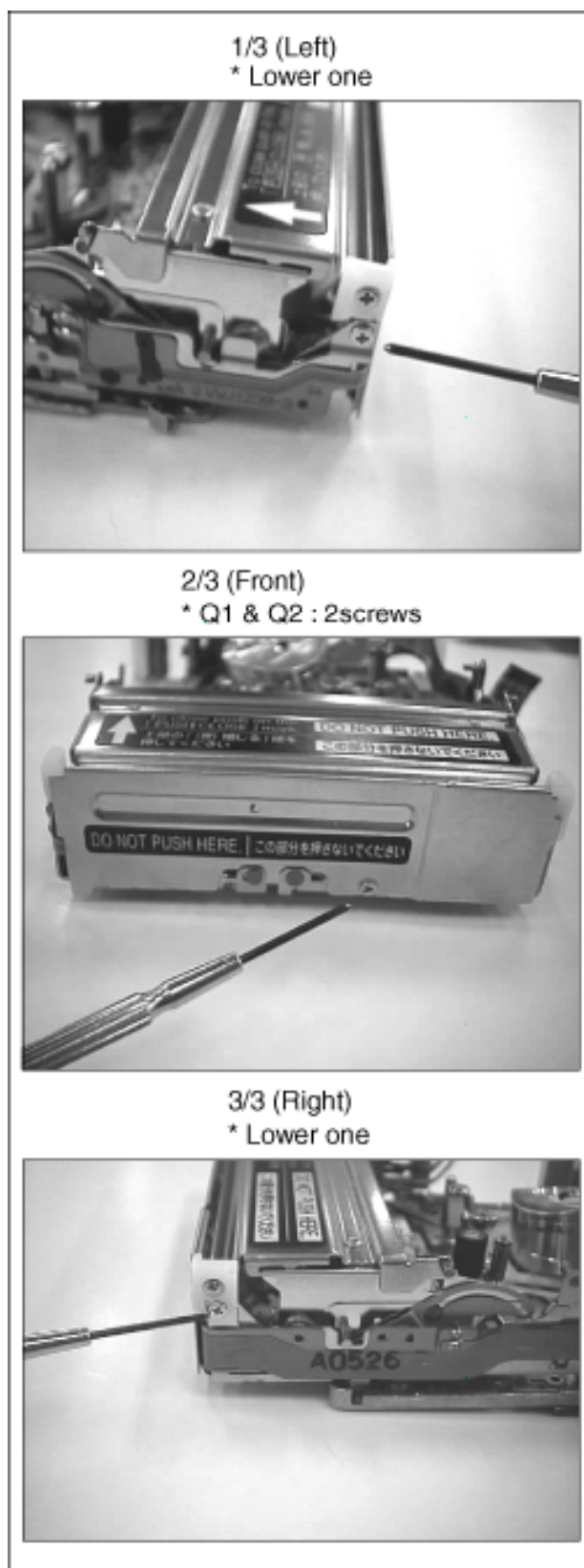


Fig. D1-2

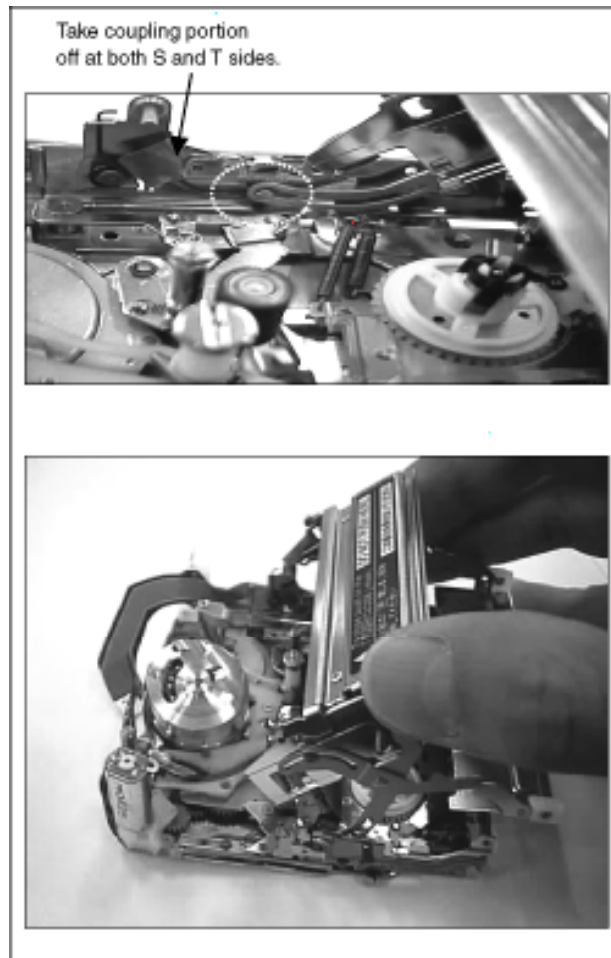


Fig. D2-1

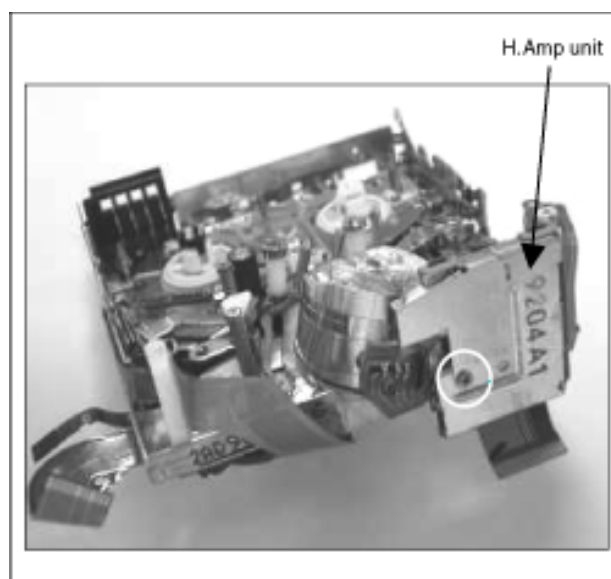


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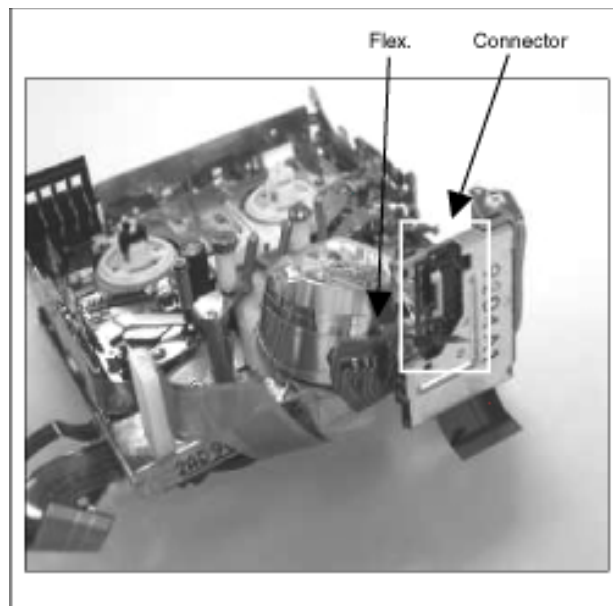


Fig. D2-3

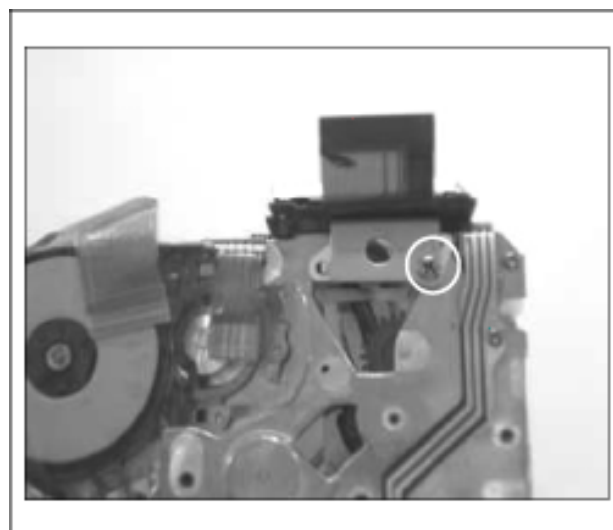


Fig. D3-1

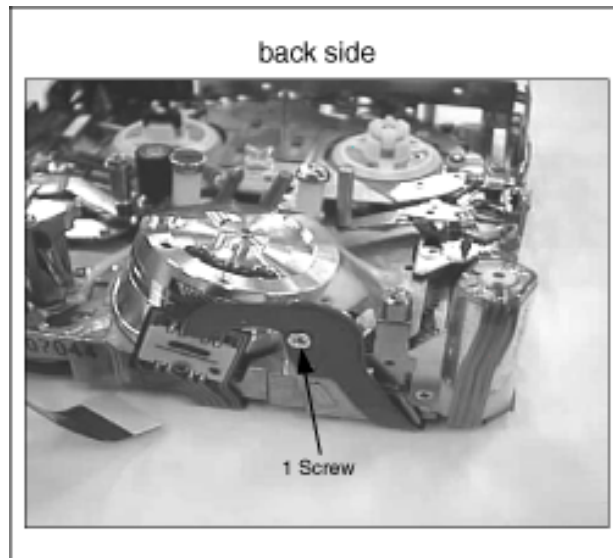


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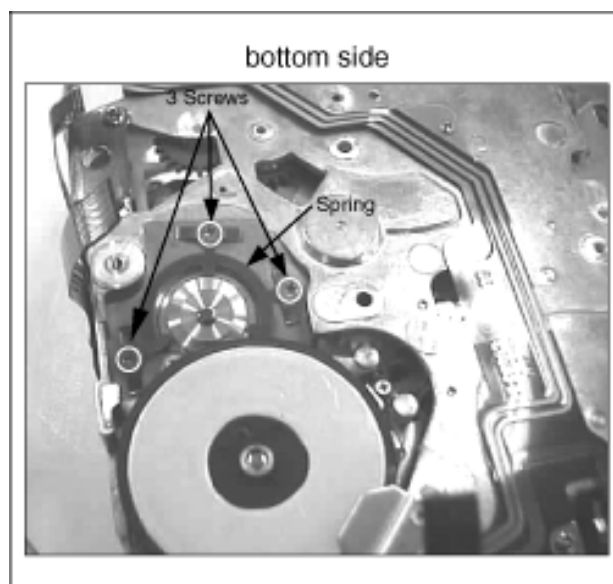


Fig. D3-3

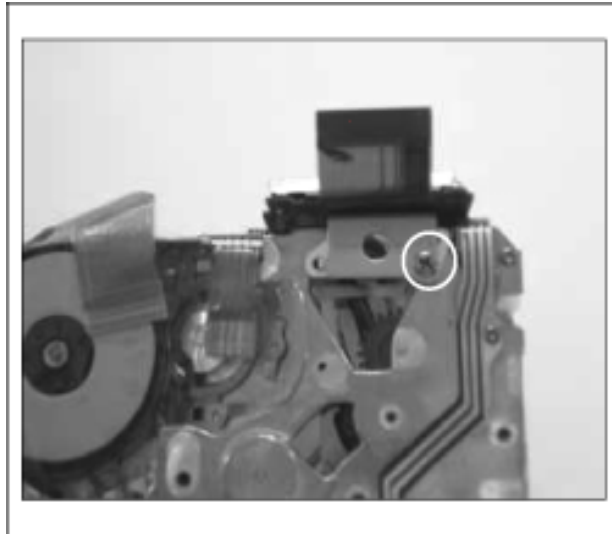


Fig. D4-1

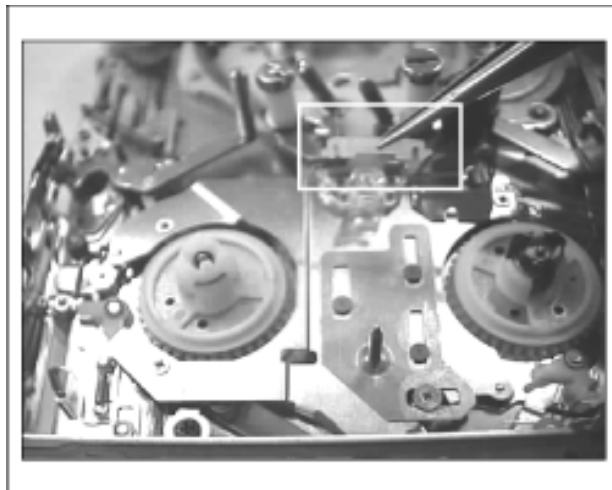


Fig. D4-2

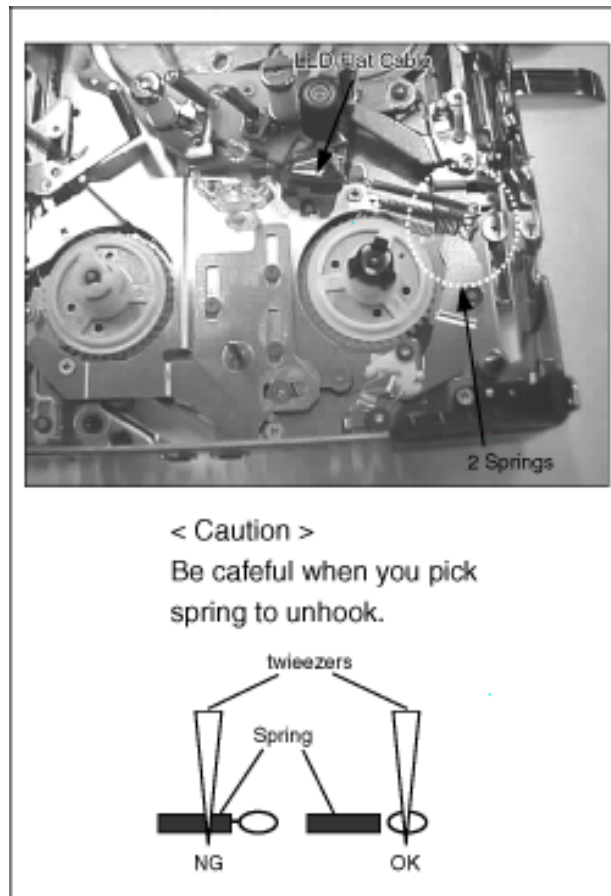


Fig. D4-3

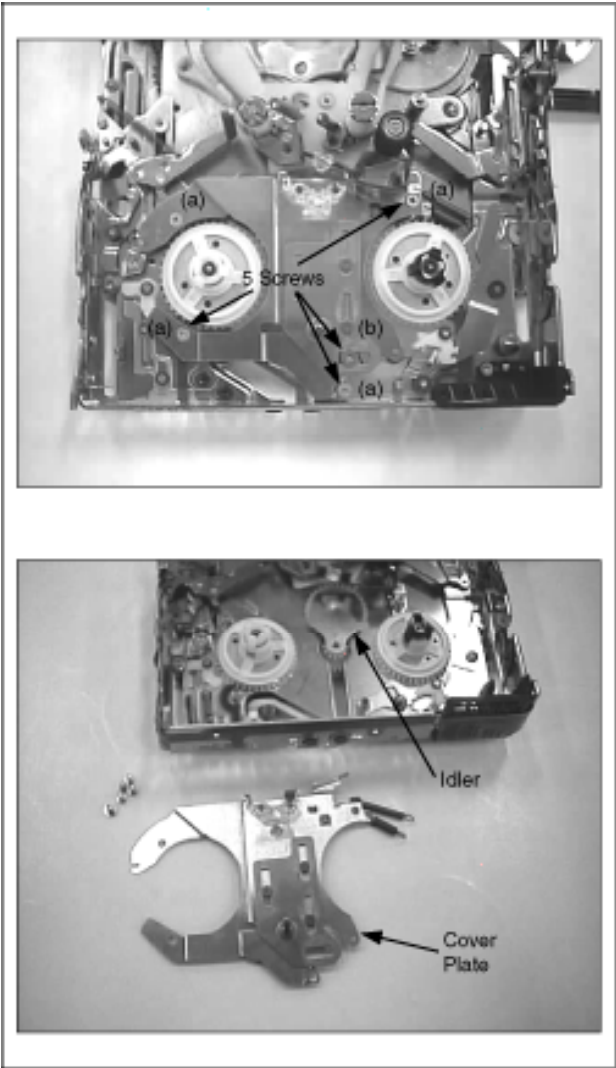


Fig. D5-1

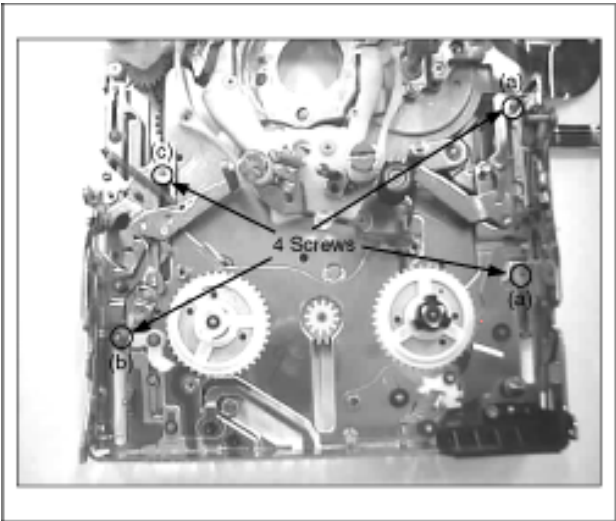


Fig. D5-2

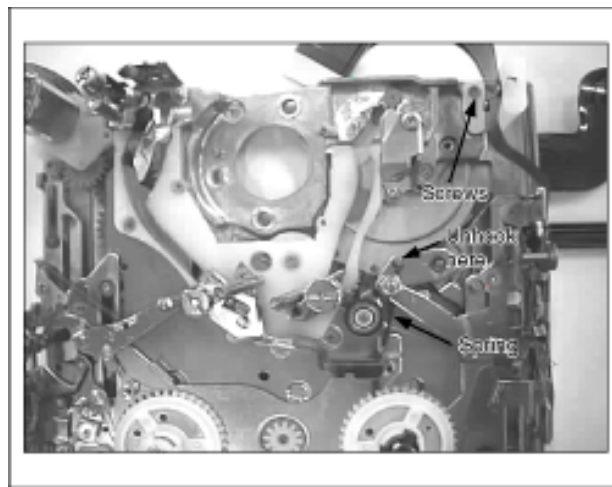


Fig. D6-1

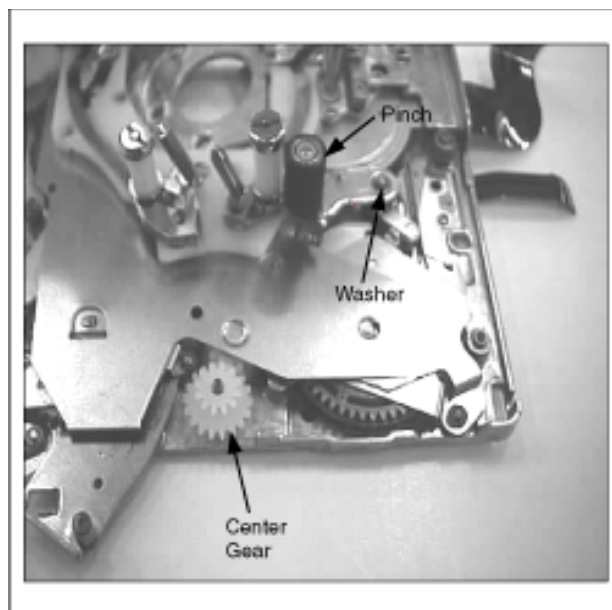


Fig. D6-2

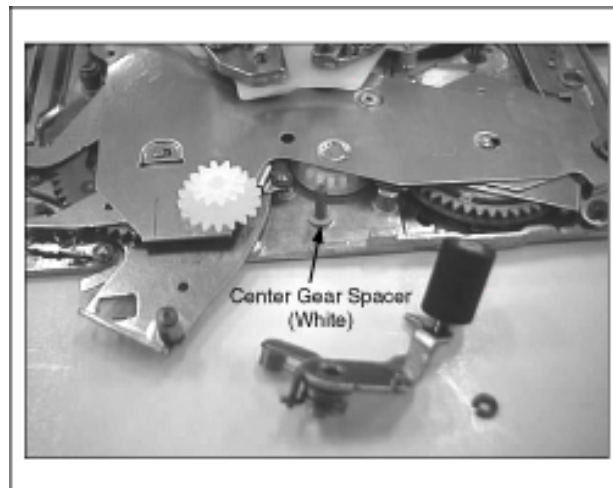


Fig. D7-1

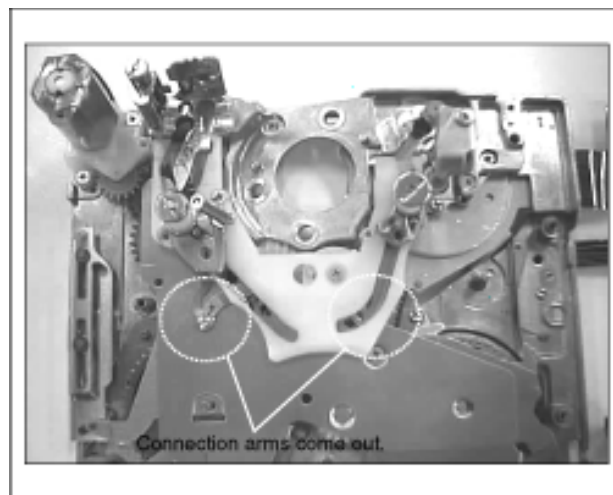


Fig. D7-2

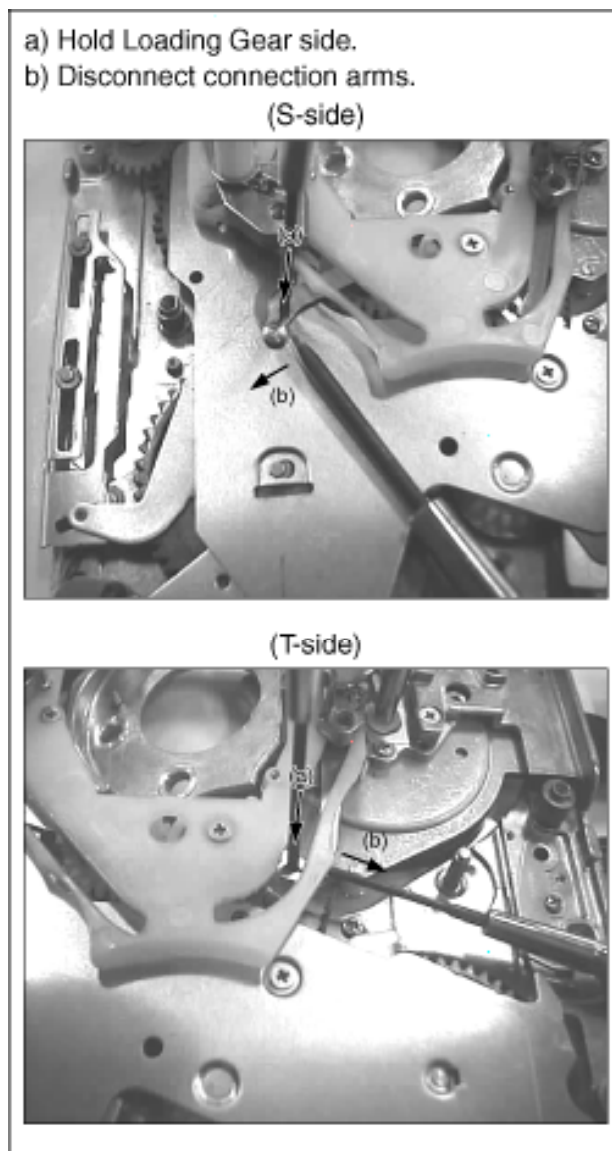


Fig. D7-3

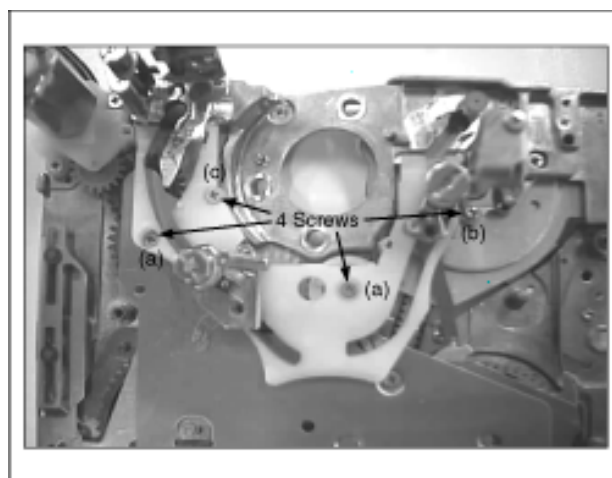


Fig. D8

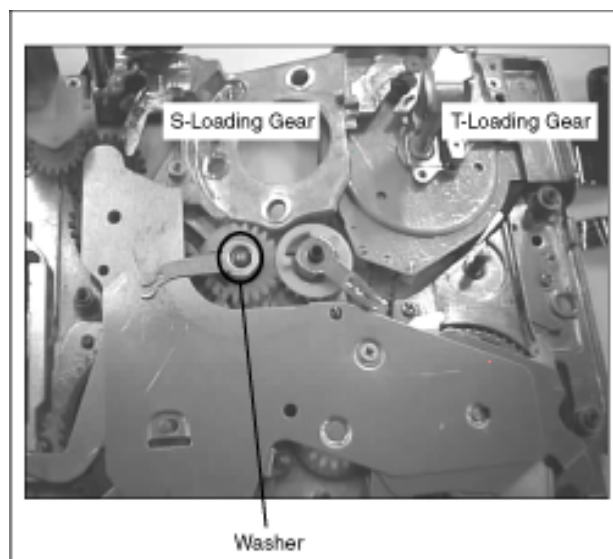


Fig. D9

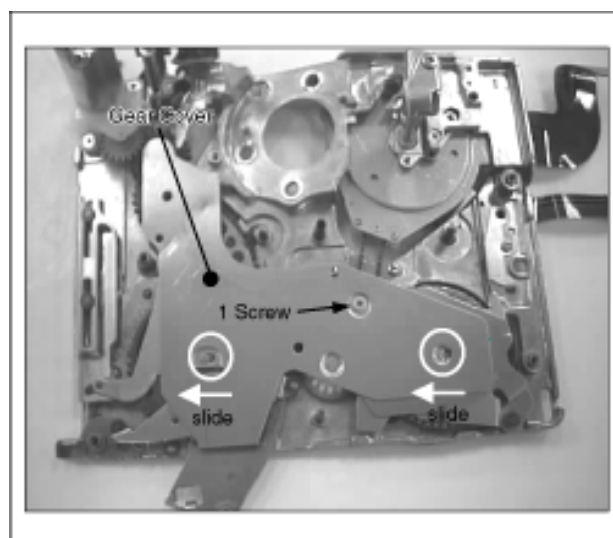


Fig. D10

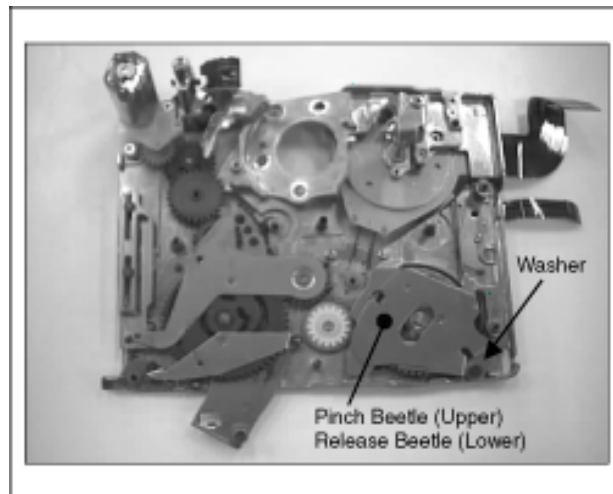


Fig. D11

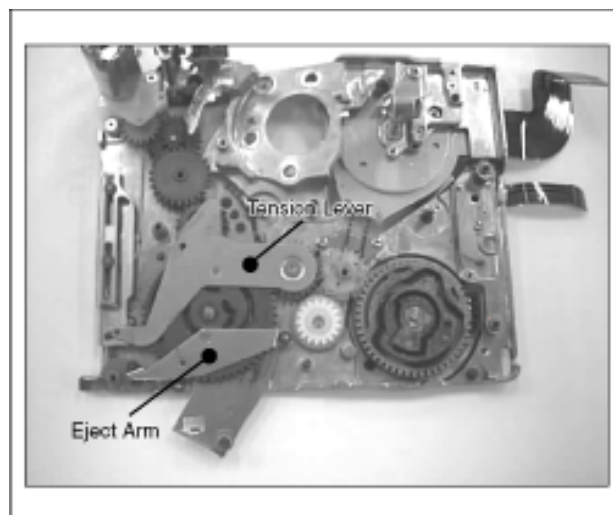


Fig. D12

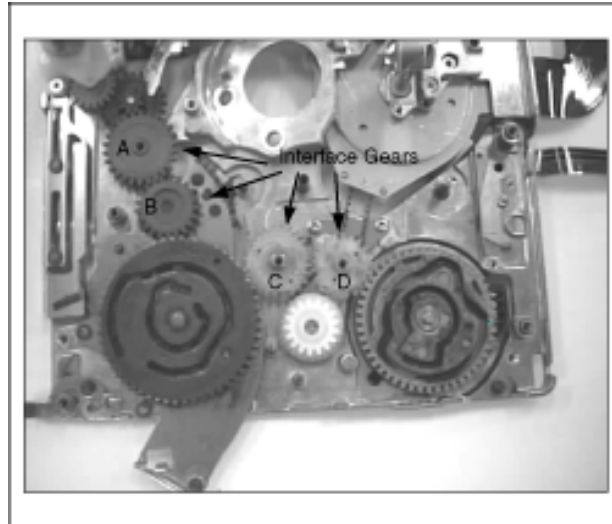


Fig. D13

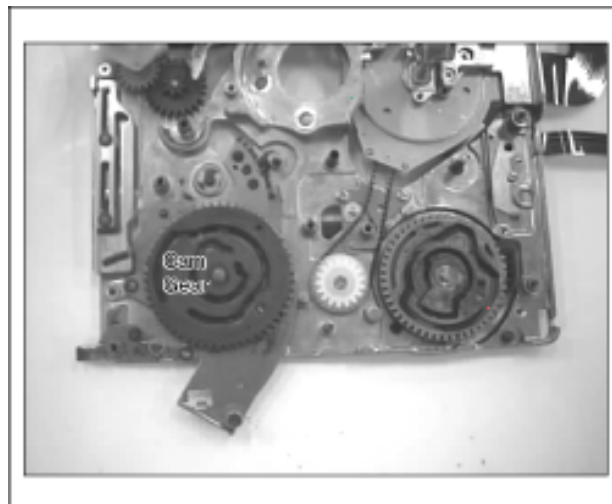


Fig. D14

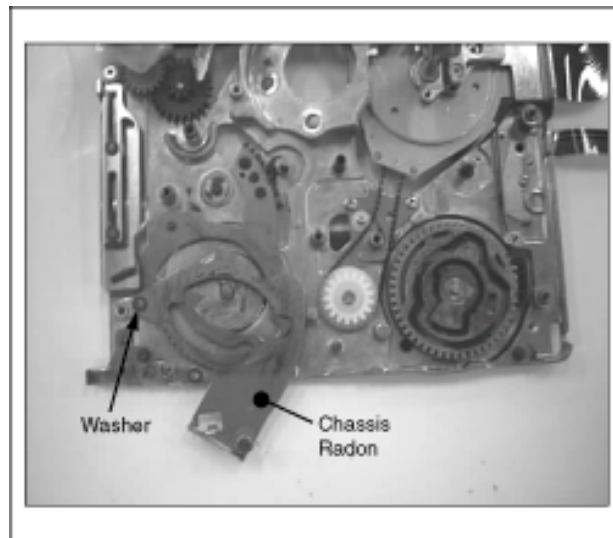


Fig. D15

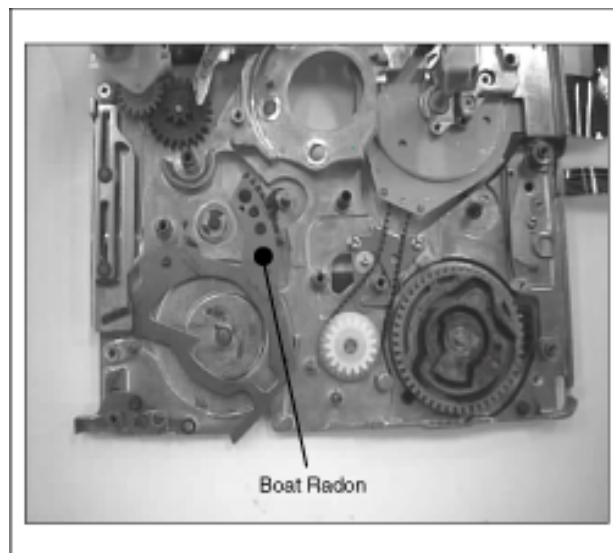


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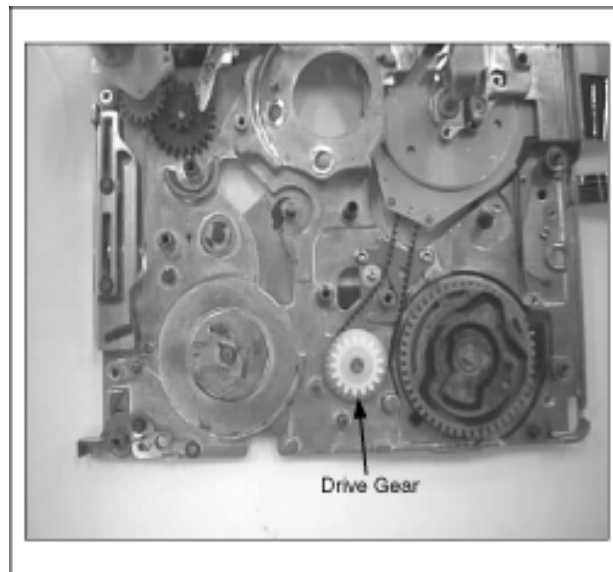


Fig. D17-1

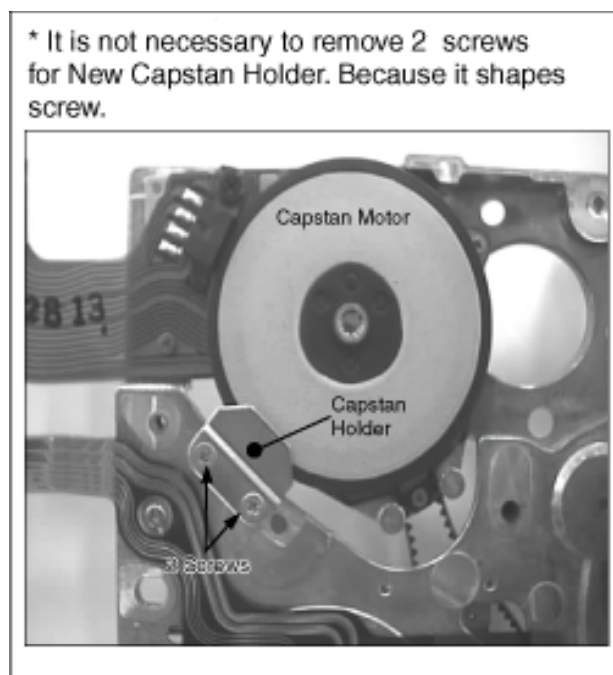


Fig. D17-2

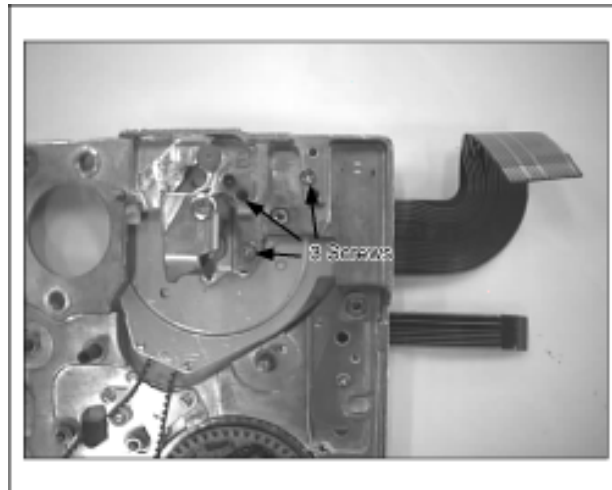


Fig. D18-1

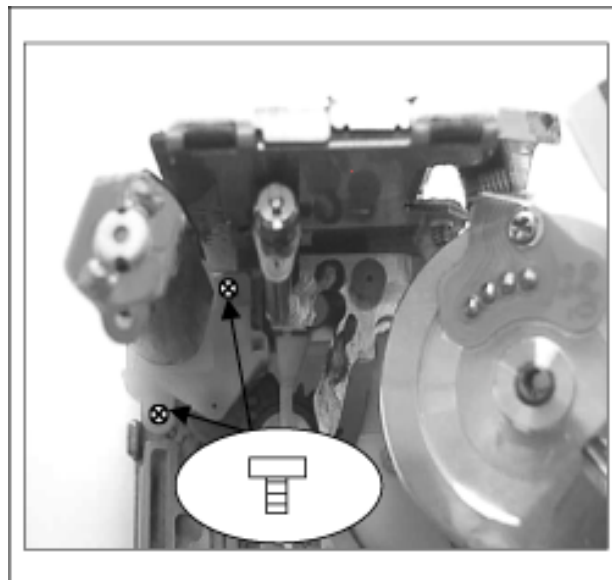


Fig. D18-2

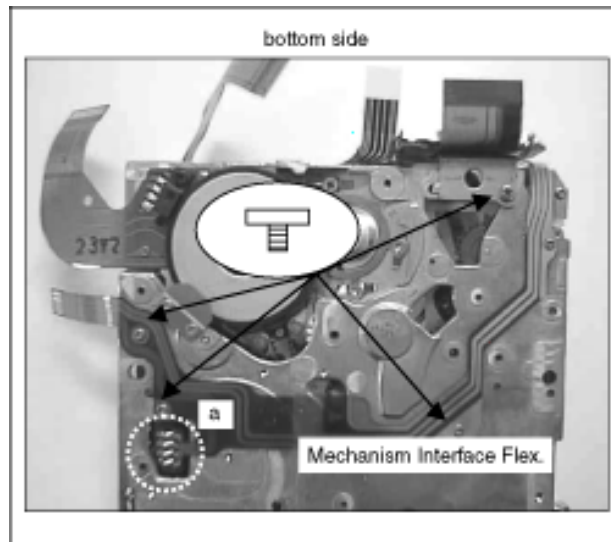


Fig. D19

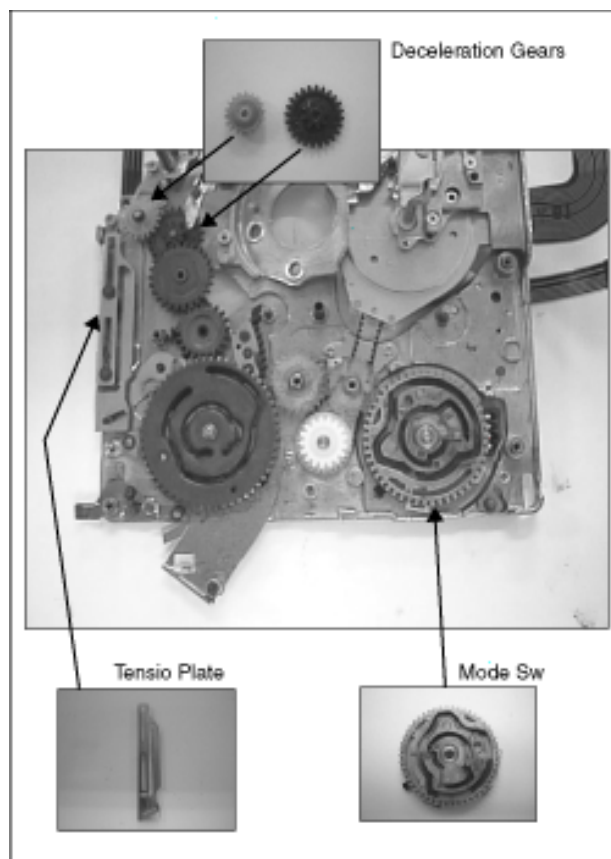


Fig. D20-1

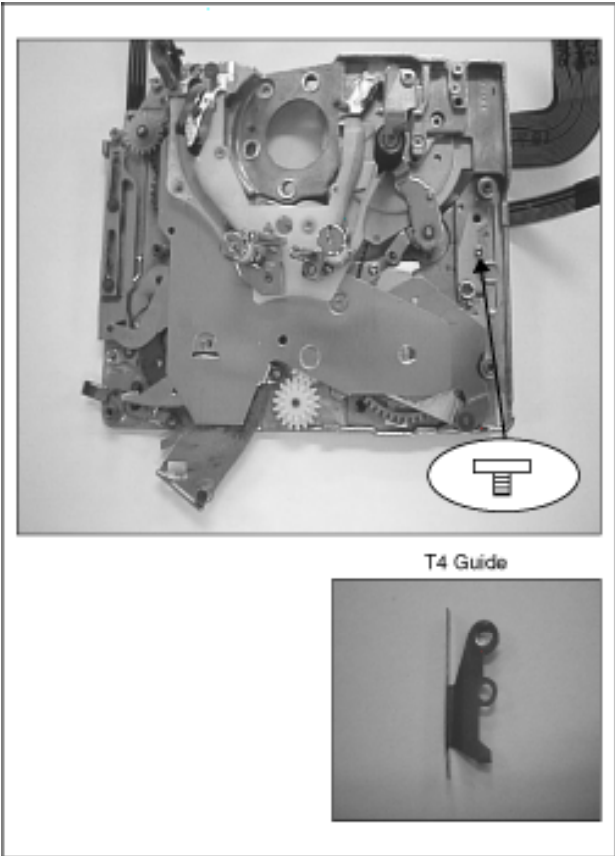


Fig. D20-2

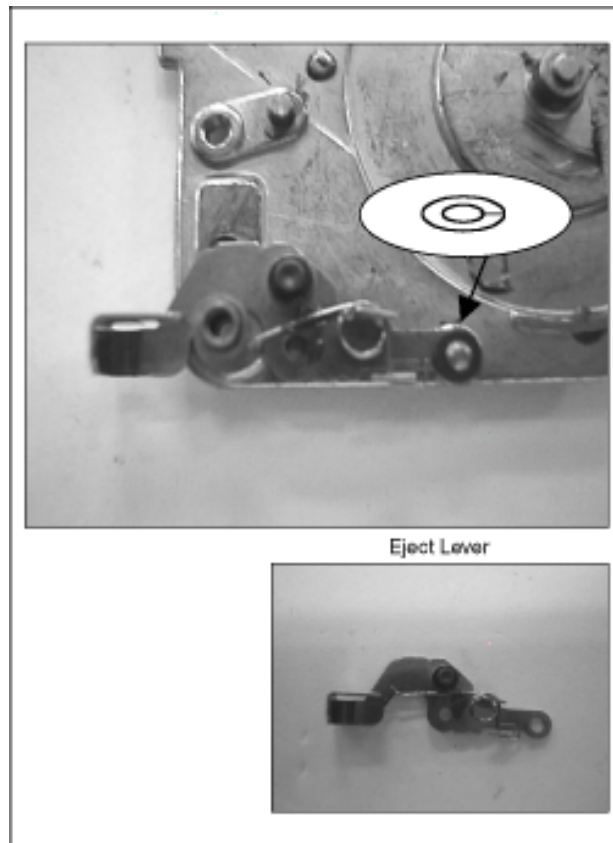


Fig. D20-3

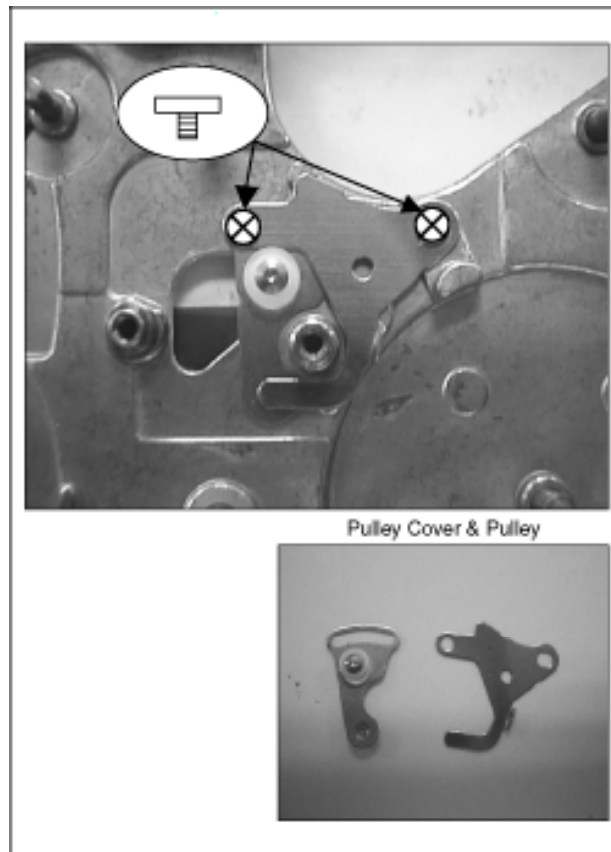
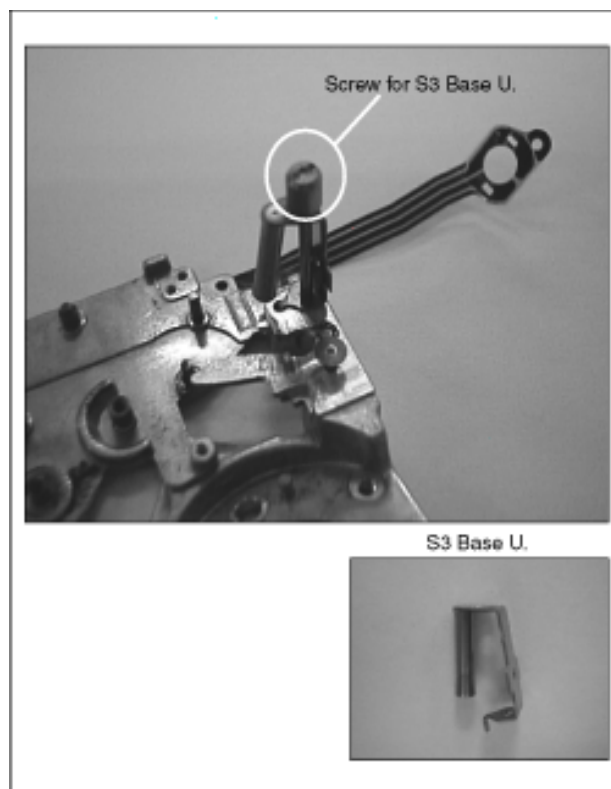


Fig. D21



4.1 ASSEMBLY PROCEDURE

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* 1) Procedure 20 for H.Amp Unit is applied only Q1 & Q2 mechanism.

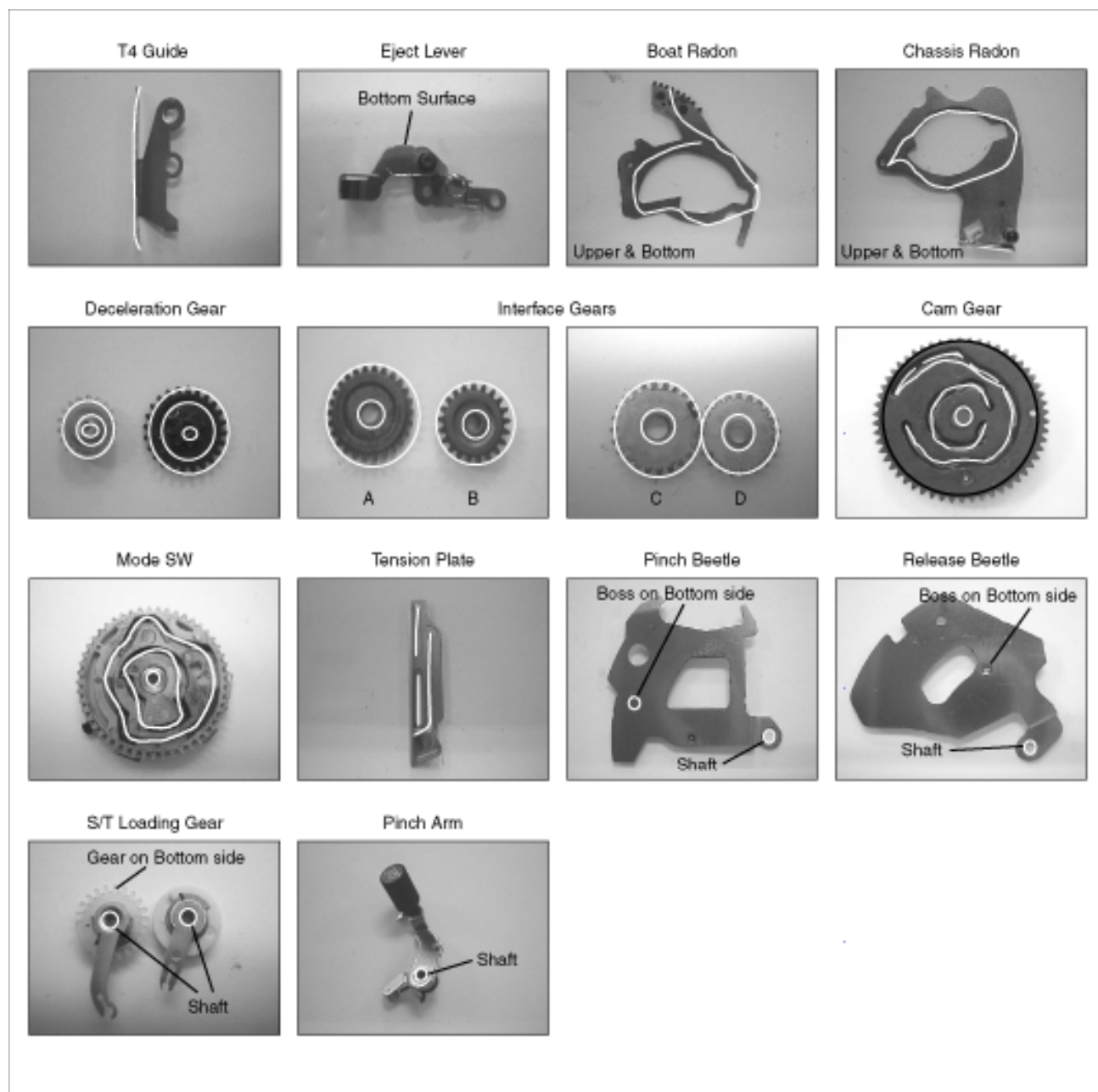
2) Procedure 1 - 3 can be changed in order.

No.	Item	Fig.	Grease	Procedure
*1	S3 Base U.	Fig. A1	--	1) Put S3 Base U on and tighten a screw.
*2	T4 Guide , Eject Lever, Pulley Cover & Pulley.	Fig. A2-1	•	1) Put hole of T4 Guide to hole of chassis and tighten a screw.
		Fig. A2-2	•	2) Put Eject Lever on and a washer.
		Fig. A2-3	--	3) Put boss of Pulley to hole of chassis on. Hole of chassis under pulley should be visible through slit of Pulley.
		Fig. A2-4	--	4) Put Pulley Cover on Pulley and tighten 2 screws.
*3	Mode Switch , Deceleration Gears & Tension Plate.	Fig. A3	•	1) Put Mode Sw on.
			•	2) Put Deceleration Gear (B) on
			•	3) Put Deceleration Gear (A) on and a washer.
			•	4) Put Tension Plate on and 2 washers.
4	Loading Motor unit & Mechanism Interface Flex.	Fig. A4	--	1) Put Loading Motor Unit on and tighten 2 screws.
			--	2) Put Mechanism Interface Flex on and tighten 4 screws. After that, solder at terminal of Mode Sw.
5	Capstan Holder & Capstan Motor	Fig. A5-1	--	1) Put Capstan Motor on and tighten 3 screws. Timing Belt should be between Pulley and boss.
		Fig. A5-2	--	2) Put Capstan Holder on and tighten 2 screws.
6	Drive Gear	Fig. A6	--	1) Put a washer to shaft and install Drive Gear. Timing Belt should be wound around Drive Gear. After that, confirm Timing Belt and Gear are rotated together.
7	Boat Radon	Fig. A7	•	1) Put hole of Boat radon to shaft of chassis.
8	Chassis Radon	Fig. A8	•	1) Put Chassis Radon and a washer on.
9	Cam Gear	Fig. A9	•	1) Put Cam Gear on. Phase Mark should be in the same line with chassis of shaft..
10	Interface Gears	Fig. A10-1	•	1) Put Interface Gear(C) & (D). Each phase mark should be in the same line.
		Fig. A10-2	•	2) Put Interface Gear(A) & (B) on.
11	Tension Lever & Eject Arm.	Fig. A11	--	1) Put boss of Tension Lever into slit of Cam Gear and Tension Plate, then tighten a screw.

				2) Put boss of Eject Arm into slit of Cam Gear. Put a washer on shaft of chassis.
12	Pinch Beetle & Release Beetle	Fig. A12	•	1) Put boss of Pinch Beetle into slit of Mode Sw. 2) Put boss of Release Beetle into slit of Mode Sw. 3) Put a washer on.
13	Gear Cover	Fig. A13	--	1) Keep sliding Gear Cover and put it on. 2) Tighten a screw.
14	T-Loading Gear & S-Loading Gear	Fig. A14	•	1) Put S-Loading Gear on. 2) Put T-Loading Gear on. Each phase mark should be in the same line.
15	Rail Unit	Fig. A15-1	--	1) Make half loading until Connection Arm comes out.
		Fig. A15-2	--	2) Connect Arm of S & T Loading Gear and Connection Arms. a) Hold Loading Gear side. b) Push Arm of S & T Loading Gear into slit of connection arms.
		Fig. A15-3	--	3) Tighten 4 screws.
16	Pinch Arm & Center Gear	Fig. A16-1	--	1) Put Center Gear Spacer on shaft of chassis. 2) Put Center Gear on.
		Fig. A16-2	•	3) Make full loading position and put Pinch arm on, then put a washer on.
17	Sub Chassis Unit	Fig. A17-1	--	1) Make unloading position until moving Release Beetle Confirm spring is exist.
		Fig. A17-2		2) Put Sub Chassis Unit on as pre-installation.
		Fig. A17-3		3) Tighten 3 screws. Make Loading position until 1 screw position appears, then tighten a screw.
		Fig. A17-4		4) Tighten a screws at Flex Holder portion and Hook spring back to Pinch Arm.
18	LED Holder, Cover plate & Idler U.	Fig. A18-1	--	1) Put Idler U into shaft of Drive Gear.
		Fig. A18-2	--	2) Put Cover Plate on and tighten 5 screws, then hook 2 springs to 2hooking portion of Sub chassis. And also put LED Flat Cable back.
		Fig. A18-3		3) Put LED Holder back.
19	Confirmation of Mechanism movement , Cylinder Unit & RT Flex. Flame.	Fig. A19-1	--	1) Confirm loading and unloading is smooth.
		Fig. A19-2	--	2) Put Cylinder Unit & Spring on and tighten 3 screws.
		Fig. A19-3	--	3) Put RT Flex. Flame on and tighten 2 screws.
*20	H Amp Unit. (Only Q1 & Q2)	Fig. A20-1	--	1) Put H Amp Unit on and tighten a screw at bottom of chassis.
		Fig. A20-2		2) Connect Cylinder Flex to connector.

		Fig. A20-3		3) Put Shield case on and tighten a screw.
21	Cassette Up Unit.	Fig. A21-1	--	1) Put both S & T sides to coupling portion on.
		Fig. A21-2		2) Tighten 3 screws. (Q1 & 2 have 4 screws)

The following parts should be applied Molyton Grease (VFK1024).



How to use washer jigs.

No.	Item	Fig.	Procedure
-----	------	------	-----------

1	Washer Jigs	Fig. W1-1	1) Each Washers.
2		Fig. W1-2	1) Put a washer on tip of Jig.
3		Fig. W1-3	1) Put Jig on shaft.
4		Fig. W1-4	1) Put a washer on shaft by pressing Jig.

Fig. W1-1

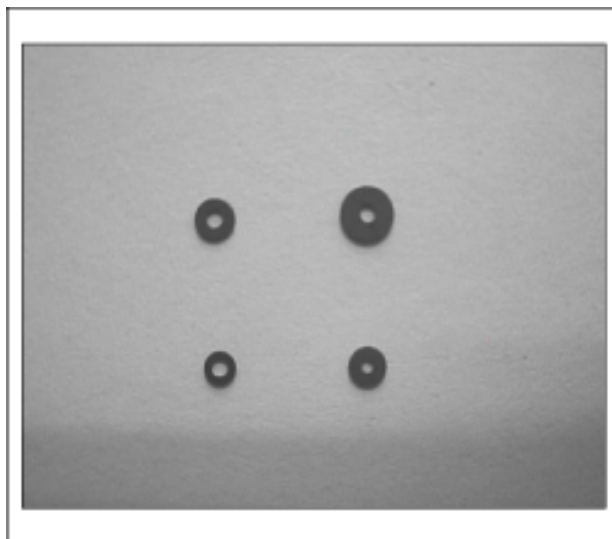


Fig. W1-2

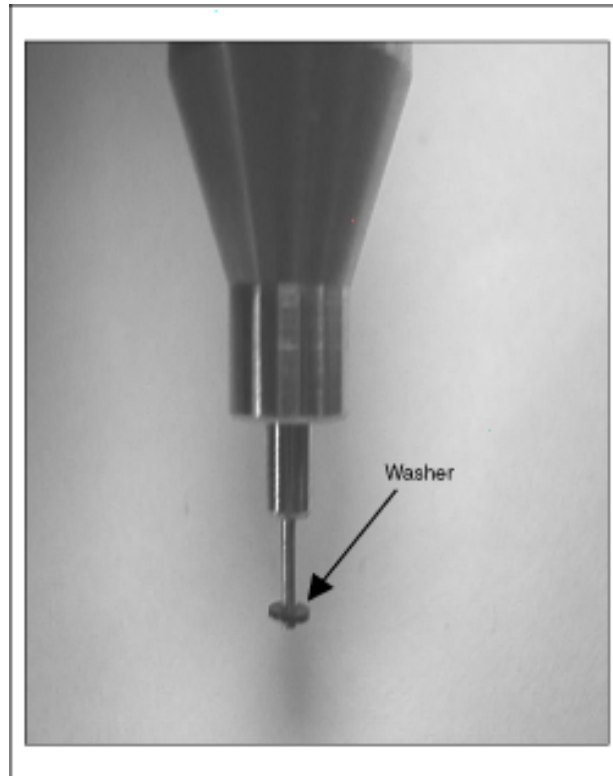


Fig. W1-3



Fig. W1-4

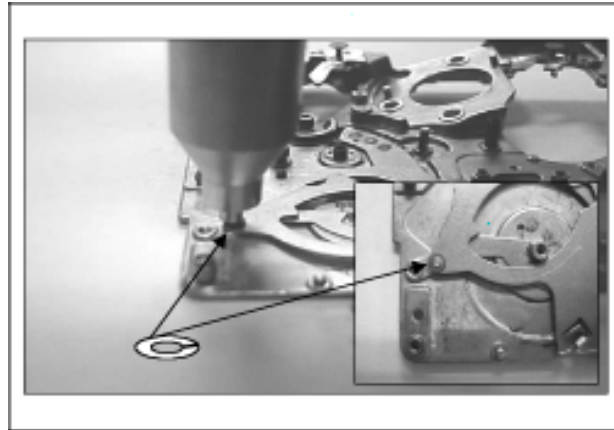


Fig. A1

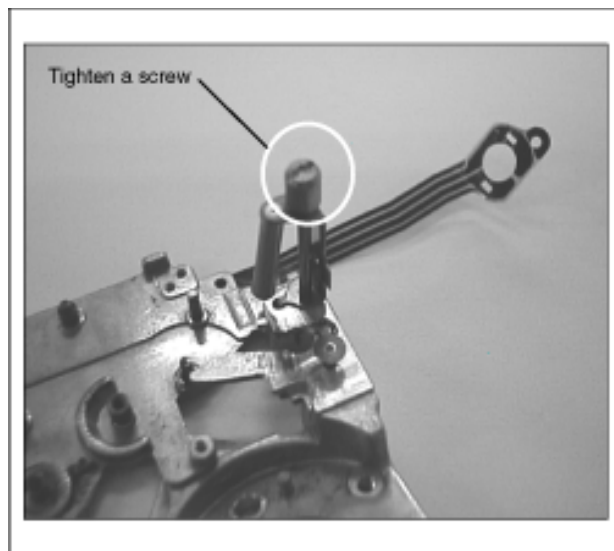


Fig. A2-1

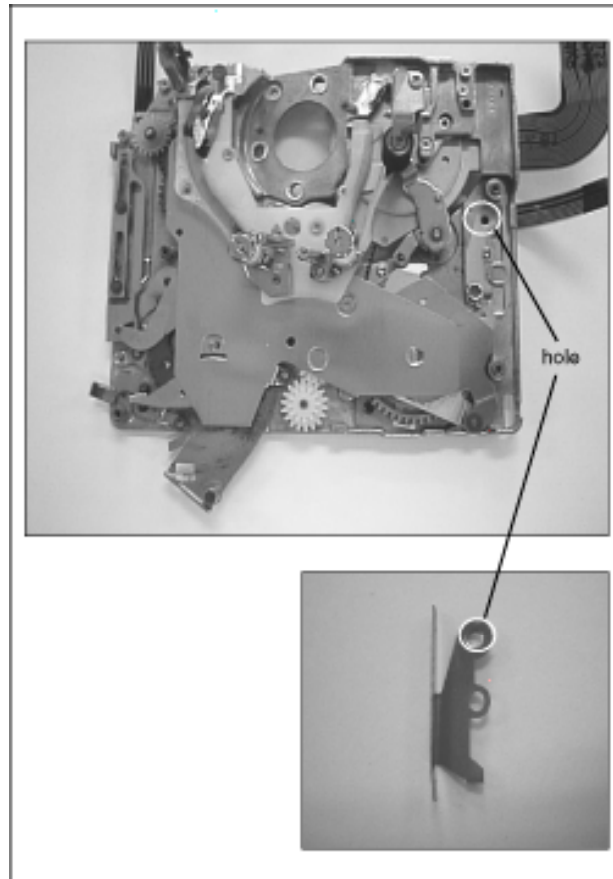


Fig. A2-2

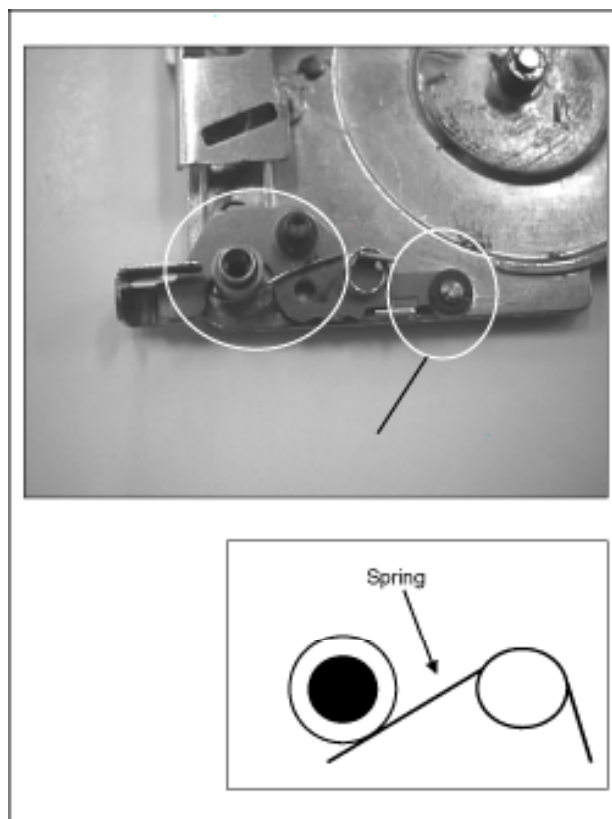


Fig. A2-3

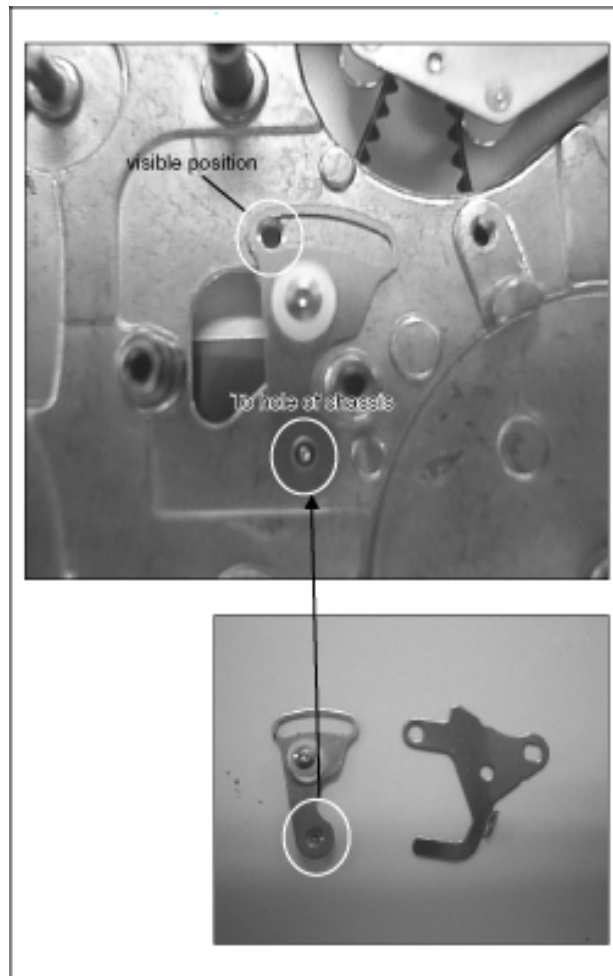


Fig. A2-4

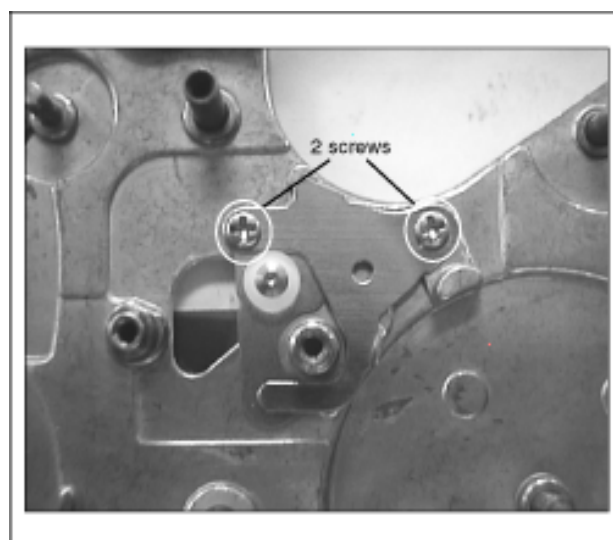


Fig. A3

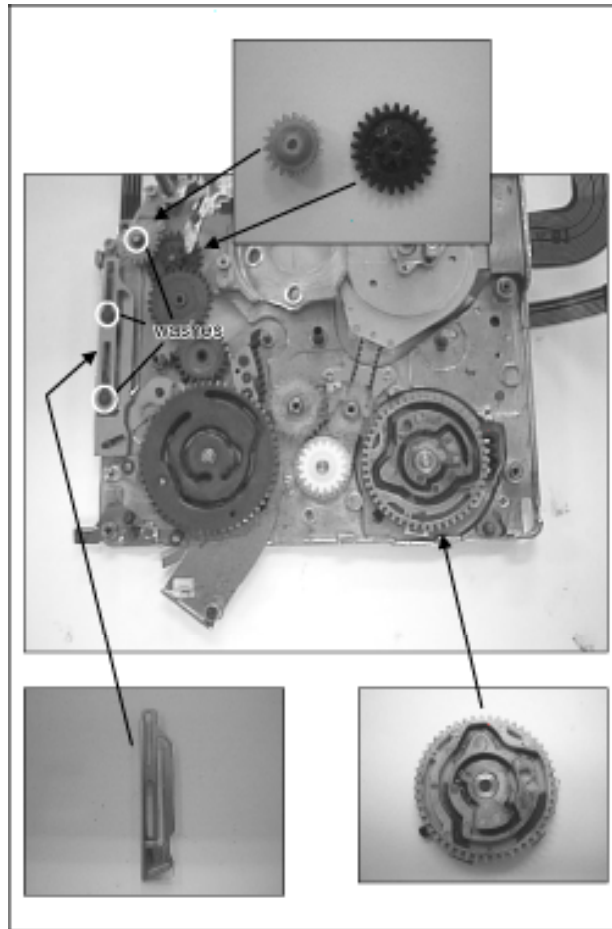


Fig. A4

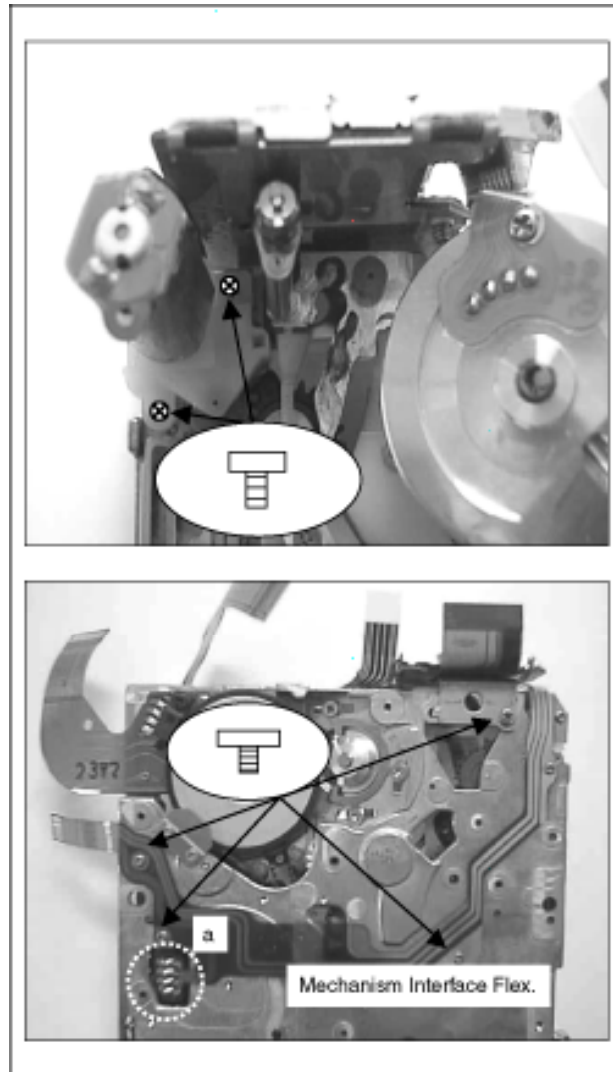


Fig. A5-1

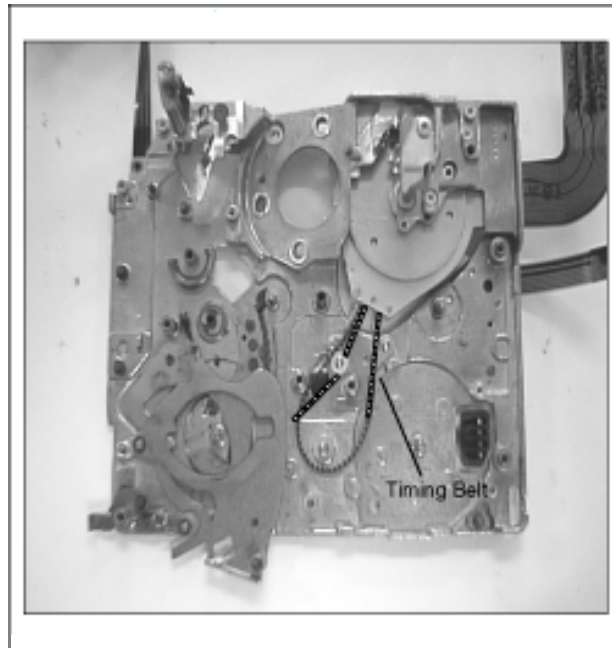


Fig. A5-2

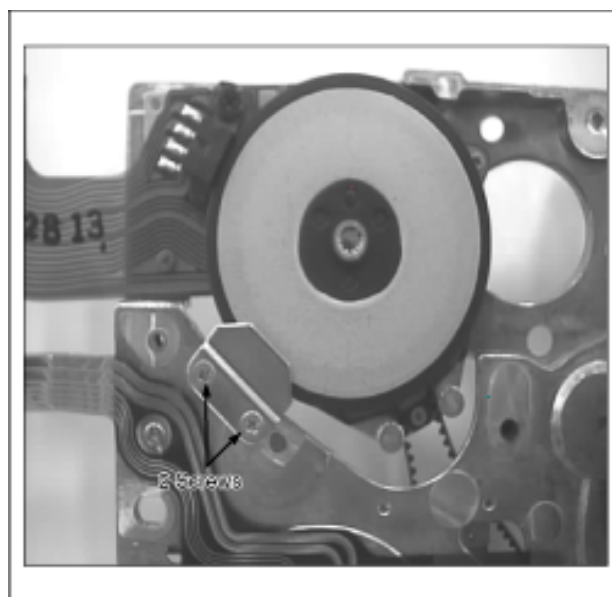


Fig. A6

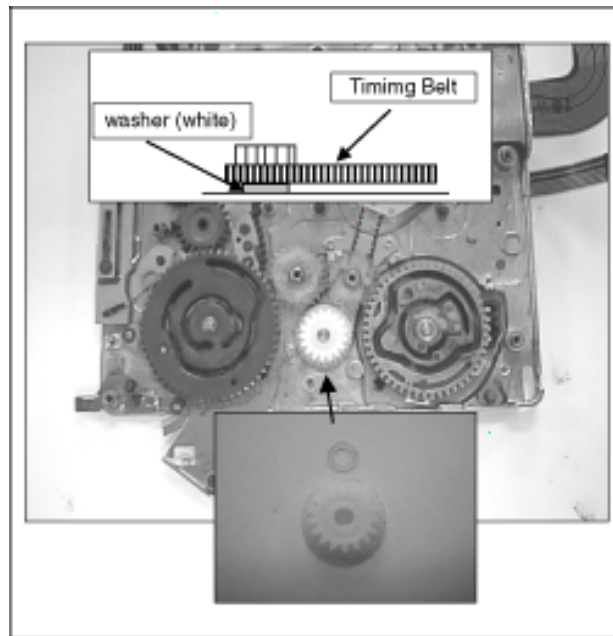


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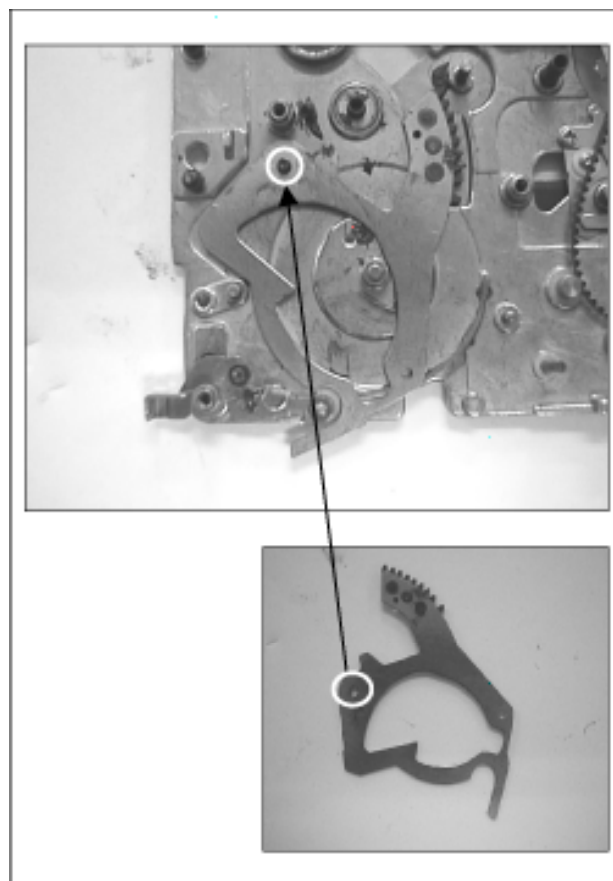


Fig. A8

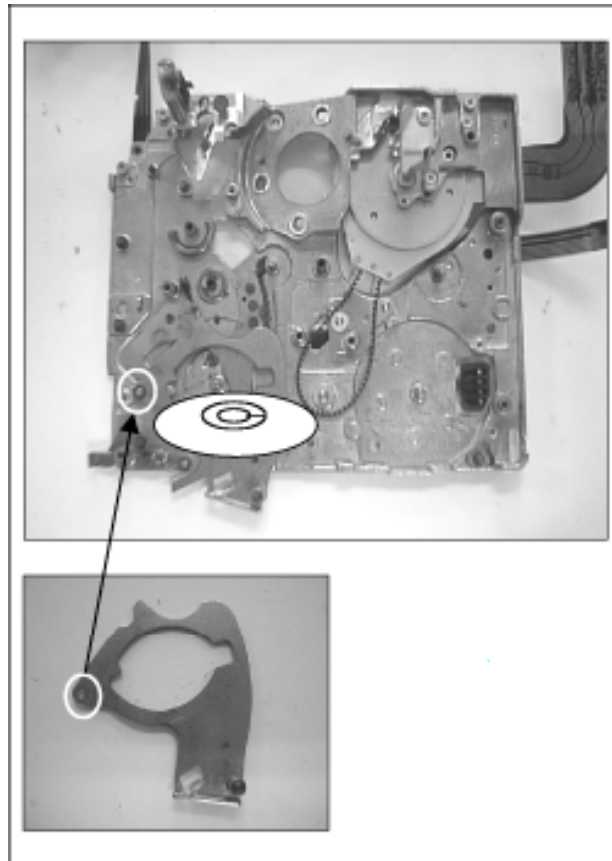


Fig. A9

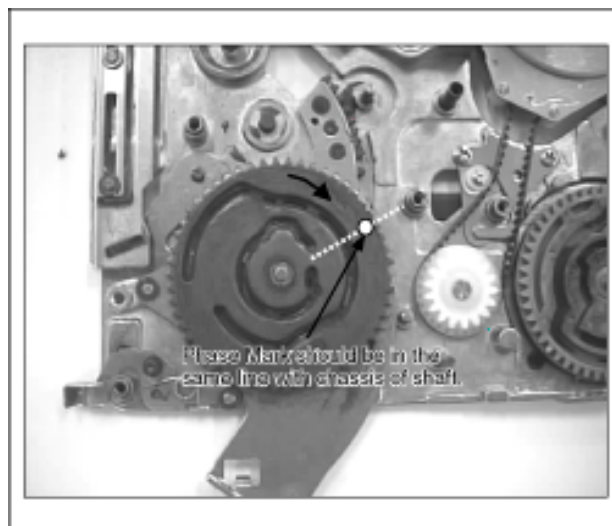


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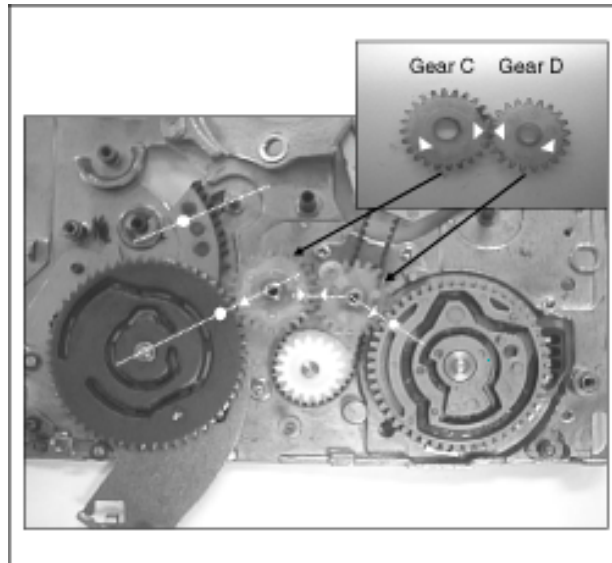


Fig. A10-2

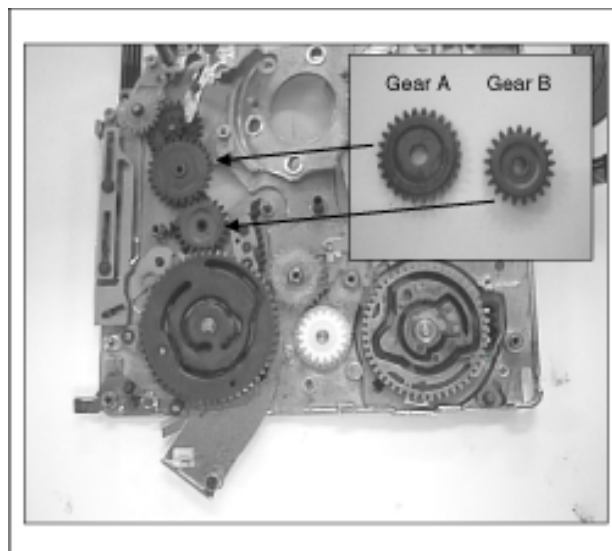


Fig. A11

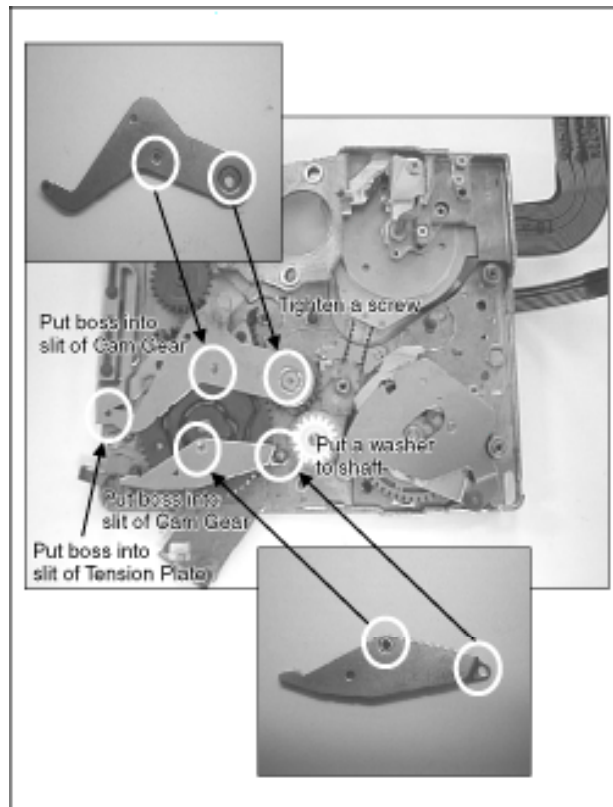


Fig. A12

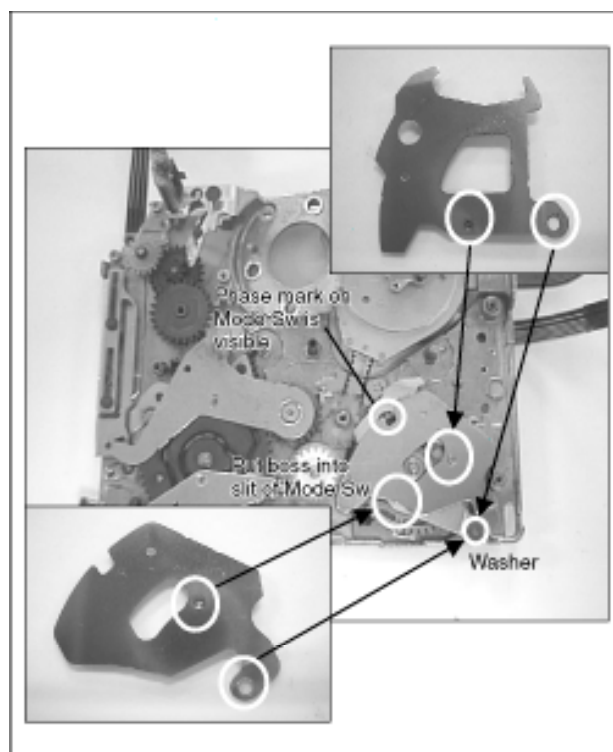


Fig. A13

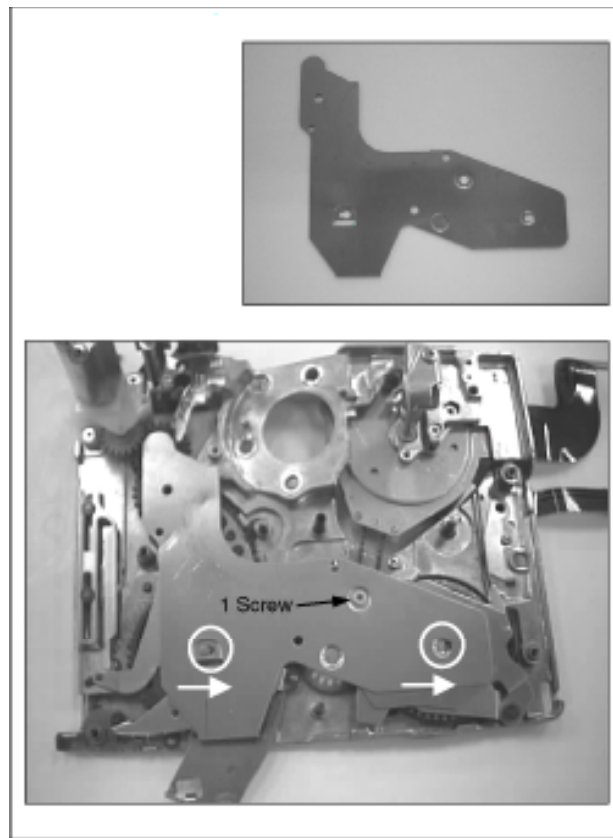


Fig. A14

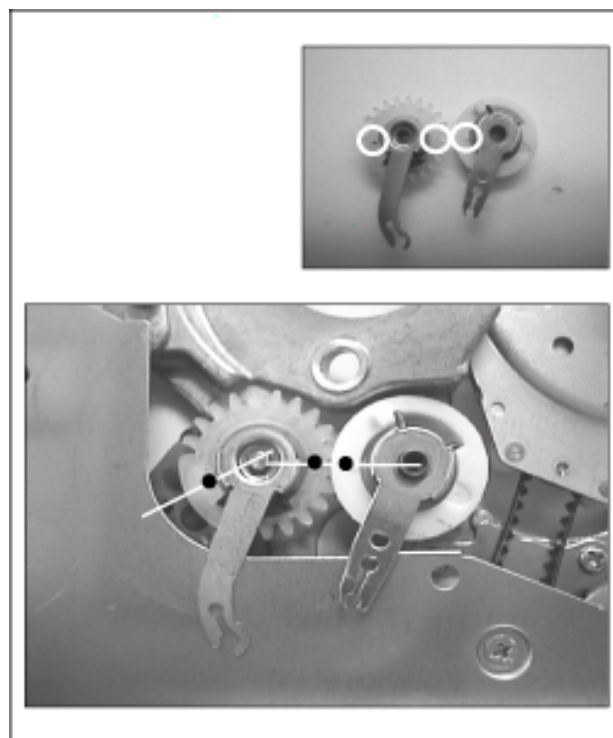


Fig. A15-1



Fig. A15-2

- a) Hold Loading Gear side.
b) Push Arm of S & T Loading Gear into slit of connection arms.

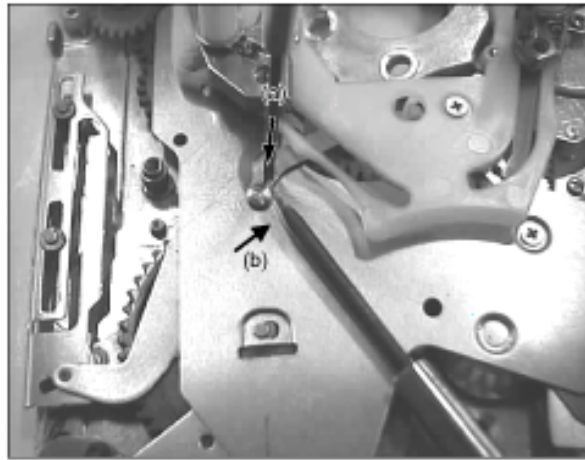


Fig. A15-3

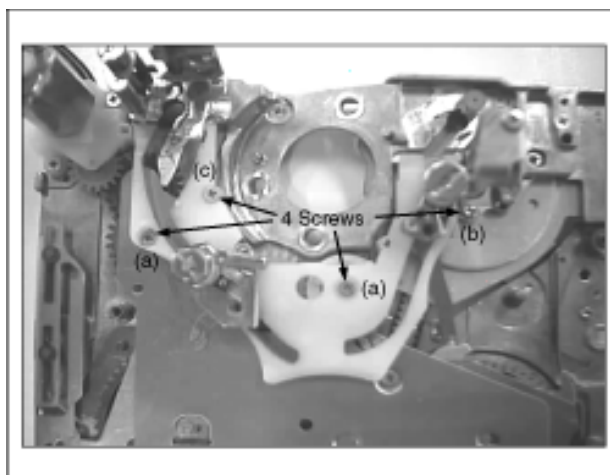


Fig. A16-1



Fig. A16-2

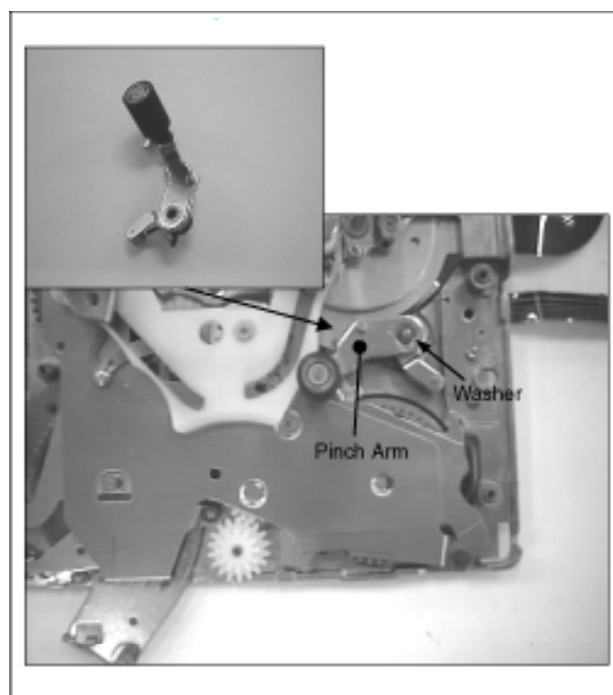


Fig. A17-1



Fig. A17-2

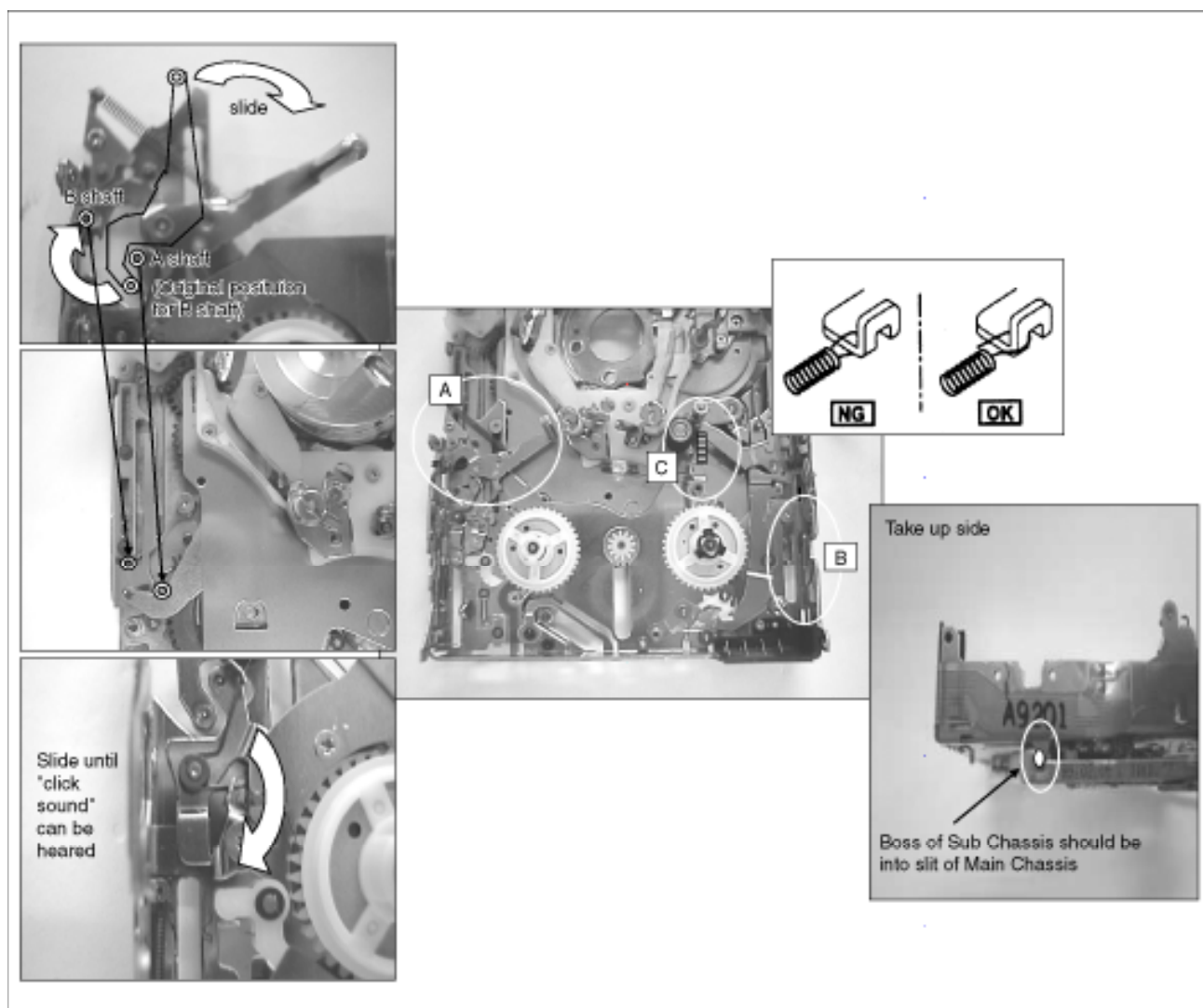


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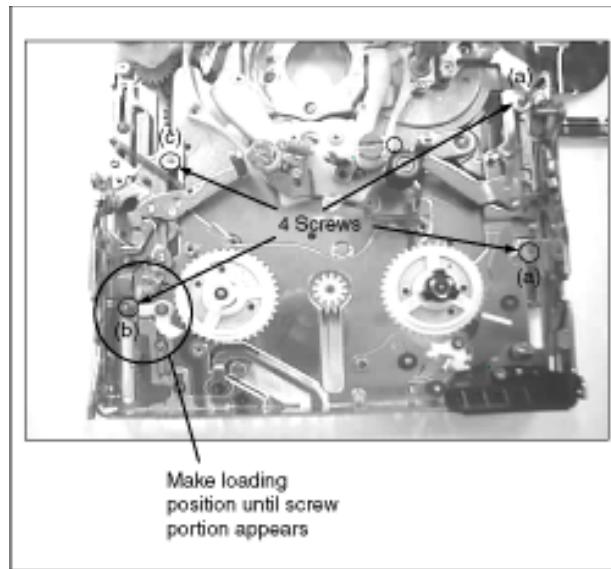


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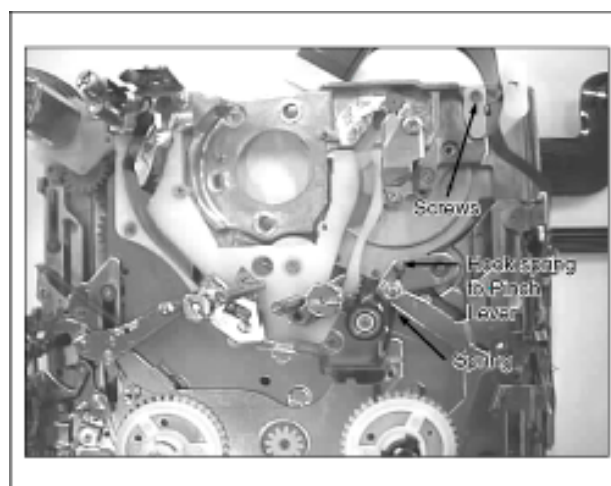


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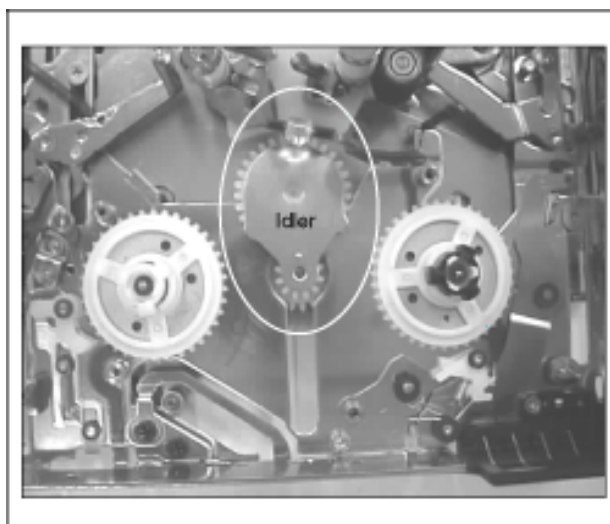


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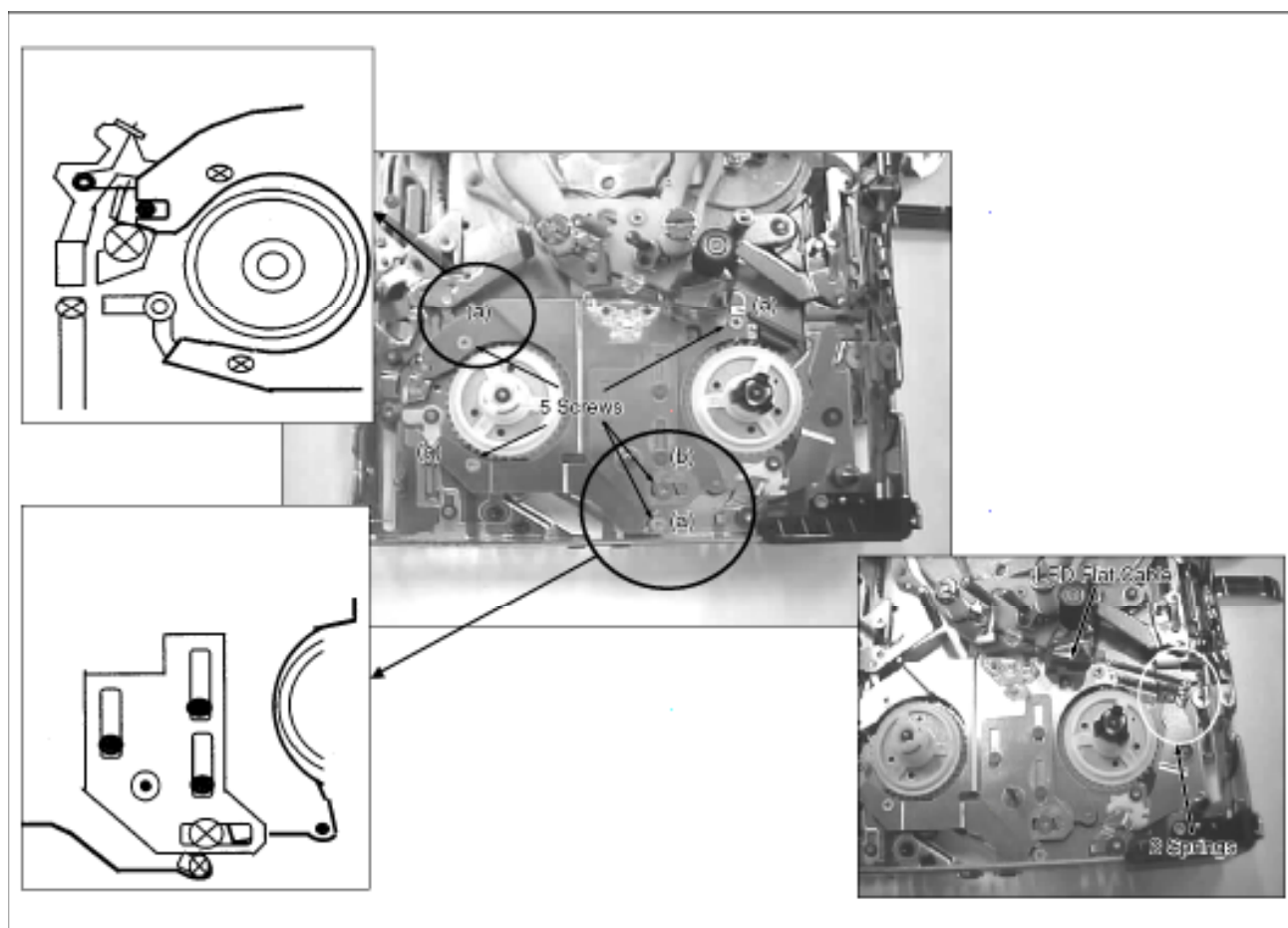


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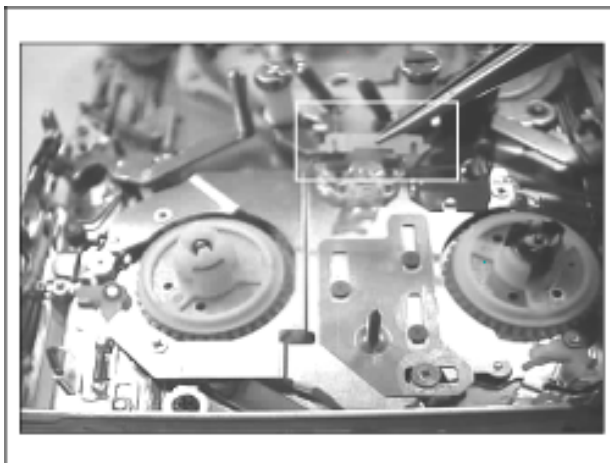


Fig. A19-1



Fig. A19-2

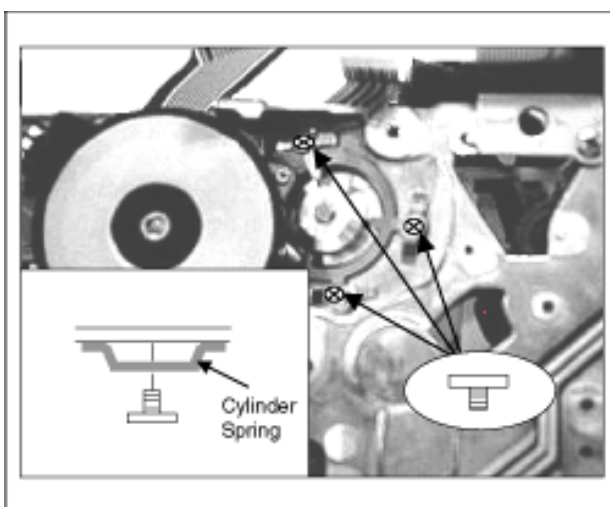


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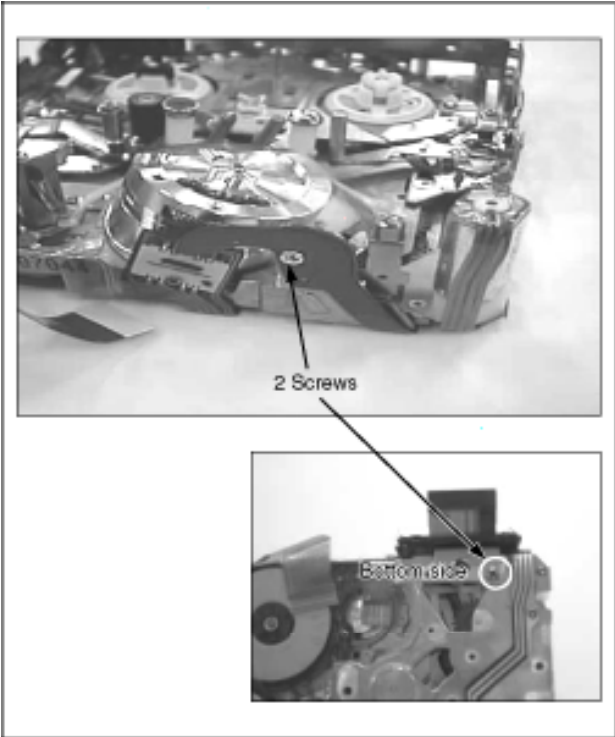


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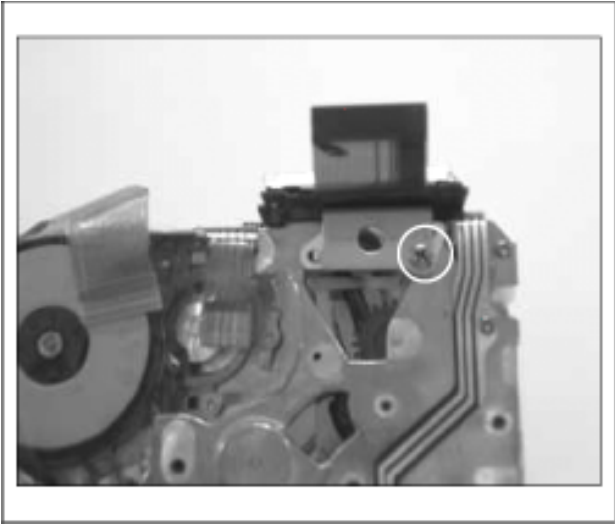


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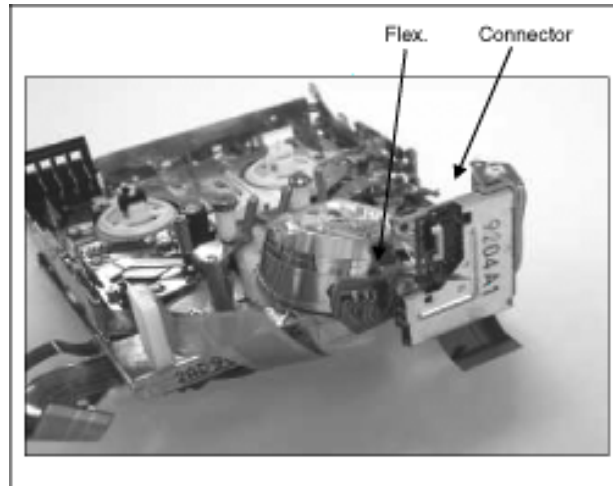


Fig. A20-3

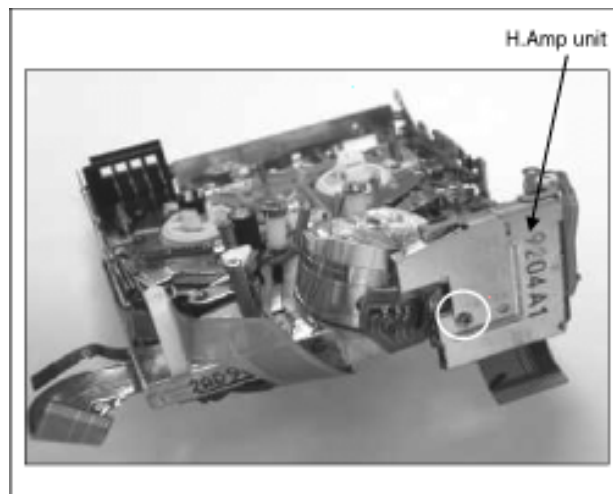


Fig. A21-1

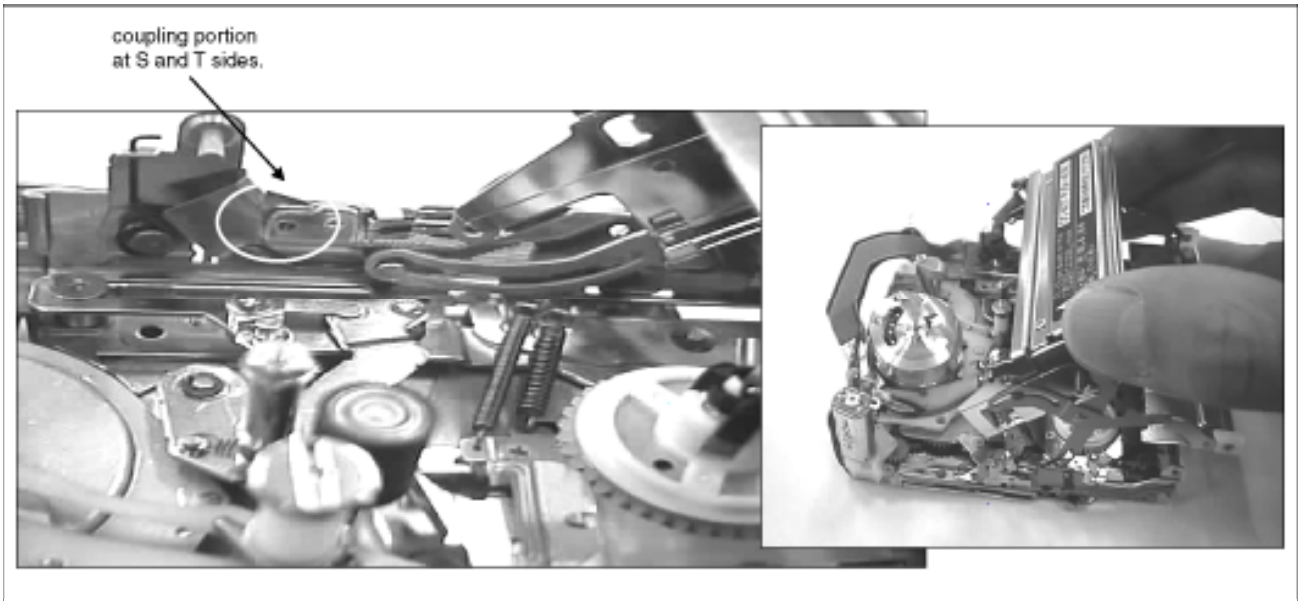


Fig. A21-2



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5.1 MECHANICAL ADJUST TABLE

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* 1) H.Amp Unit is applied only Q1 & Q2 mechanism.

No.	Item	Confirmation of Tape Running	Linearity Adjustment	Confirmation of B.E.R. Value	Capstan tilt Adjustment	S3 Base adjustment	Sub Chassis Adjustment
1	MECHANISM CHASSIS	--	--	•	--	--	--
2	Cassette Up Unit.	--	--	--	--	--	--
*3	H Amp Unit.	--	--	•	--	--	--
4	Cylinder Unit	•	•	•	--	--	--
5	RT Flex. Flame.	--	--	--	--	--	--
6	LED Holder	--	--	--	--	--	--
7	Cover Plate	--	--	--	--	--	--
8	Idler U.	--	--	•	--	--	--
9	Sub Chassis Unit	•	•	•	--	--	•
10	Pinch Arm	•	•	•	--	--	--
11	Center Gear	--	--	•	--	--	--
12	Rail Unit	•	•	•	--	--	--
13	S-Loading Gear	--	--	•	--	--	--
14	T-Loading Gear	--	--	•	--	--	--
15	Gear Cover	--	--	•	--	--	--
16	Pinch Beetle	--	--	•	--	--	--
17	Release Beetle	--	--	•	--	--	--
18	Tension Lever	•	•	•	--	--	--
19	Eject Arm	--	--	--	--	--	--
20	Interface Gears	--	--	•	--	--	--
21	Cam Gear	--	--	•	--	--	--
22	Chassis Radon	--	--	--	--	--	--
23	Boat Radon	--	--	--	--	--	--
24	Drive Gear	--	--	•	--	--	--
25	Capstan Holder	--	--	--	--	--	--
26	Capstan Motor	•	•	•	•	--	--
27	Loading Motor Unit	--	--	--	--	--	--

28	Mechanism Interface Flex.	--	--	--	--	--	--
29	Mode Switch	--	--	--	--	--	--
30	Deceleration Gears	--	--	•	--	--	--
31	Tension Plate	•	•	•	--	--	--
32	T4 Guide	--	--	--	--	--	--
33	Eject Lever	--	--	--	--	--	--
34	Pulley Cover	--	--	--	--	--	--
35	Pulley	--	--	--	--	--	--
36	S3 Base U.	•	•	•	--	•	--

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5.2 MECHANICAL ADJUSTMENT PROCEDURE

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No.	Item	Equipment	Fig.	Procedure
1	Confirmation of Tape Running	1. Alignment Tape (PAL: VFM3110EDS/NTSC: VFM3010EDS) 2. Post Adjustment Driver(VFK1278)	Fig. AD1-1	1) Confirm each post position in playback mode.
			Fig. AD1-2	2) Confirm condition of tape regulation in playback & review mode.
2	Linearity Adjustment	1. Tatsujin system(Refer to Fig.)	Fig. AD2-1	1) Set up Tatsujin System.
		2. Alignment Tape (PAL: VFM3110EDS/NTSC: VFM3010EDS)	Fig. AD2-2	2) Connect Envelope Detector Board between Measuring Board & Oscilloscope.
		3. Envelope Detecor Board (VFK1641) 4. Post Adjustment Driver (VFK1278)	--	3) Remove Adjustment Cover. * Location for Adjustment Cover depends on Models.
			Fig. AD2-3	4) Playback the Alignment Tape and adjust S2 & T3 posts by Screw Driver until wavefom becomes flat. After adjustment, B.E.R. should be confirmed by Electrical adjustment on the "Tatsujin".
3	Confirmation of B.E.R. Value	1. Tatsujin system(Refer to Fig.)	Fig. AD2-1	1) Refer to Electrical Adjustment on the "Tatsujin".
4	Capstan tilt Adjustment	1. Capstan Tilt Adj. Jig(VFK1638) 2. Small Phillips Screw Driver	Fig. AD4-1	1) Slide sensor pin to Capstan shaft. After touching,if OK, LED should be lit. * Do not touch when you confirm LED lit or not.
			Fig. AD4-2	2) If Ng, Capstan tilt should be adjusted. a) Tighten screw (A) until LED is lit. b) Loose screw (B) until LED is not lit. c)Tightenscrew (A) anti-clockwise until LED is lit .
5	S3 Base adjustment	1. Post Adjustment Driver(VFK1278)	Fig. AD5-1	1) Adjust S3 screw as Evvelope becomes flat.
			Fig. AD5-2	2) Tighten a screw 180 degree as "ENV 1". 3) Loosen a screw as ENV 2. 4) Tighten a screw until ENV becomes flat as ENV 3 and tighten a screw 180 degree again.
6	Sub Chassis Adjustment	1. Small Phillips Screw Driver	Fig. AD6-1	1) Make Review Position. * Set Loading mode and then,stop Pinch Roller & Capstan shaft is touched.

Fig. AD6-2

2) Loosen a screw.
After fixing a shaky Sub Chassis, then
tighten a screw.

Fig. AD1-1

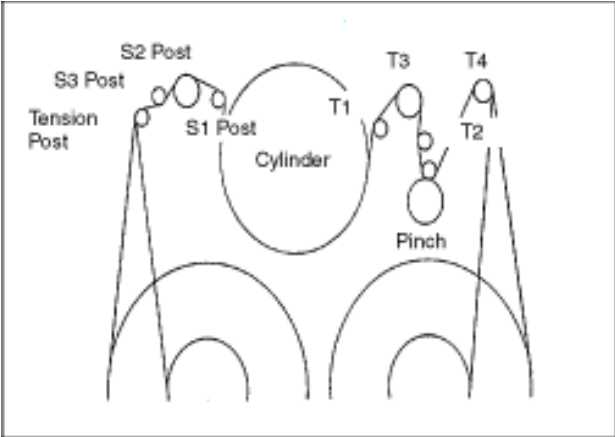


Fig. AD1-2

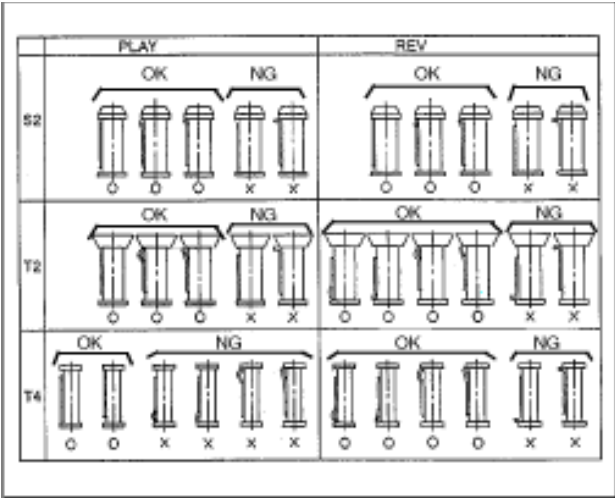


Fig. AD2-1

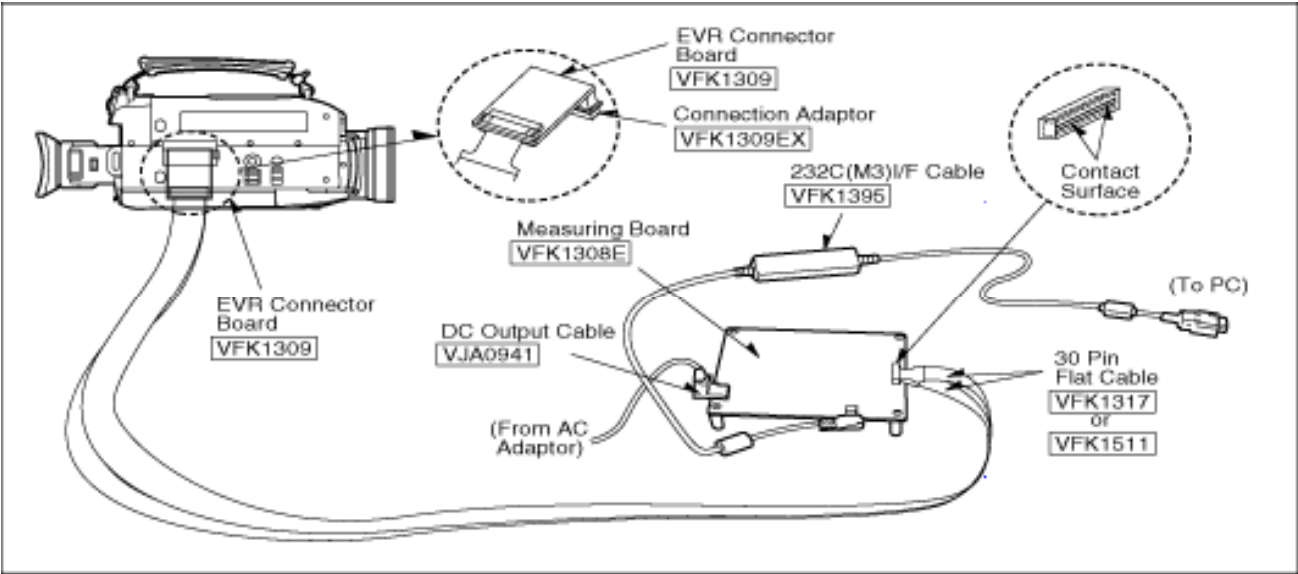


Fig. AD2-2

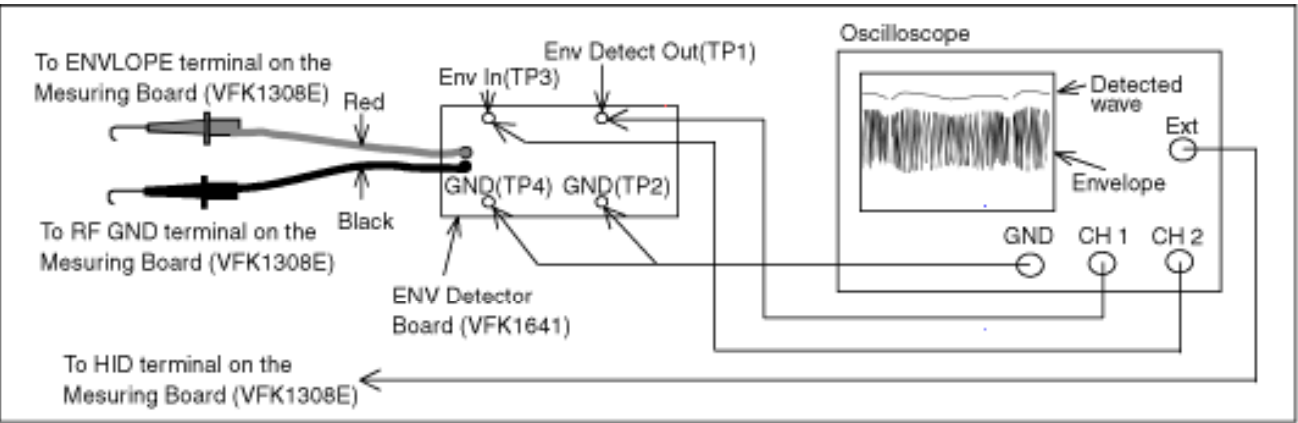


Fig. AD2-3

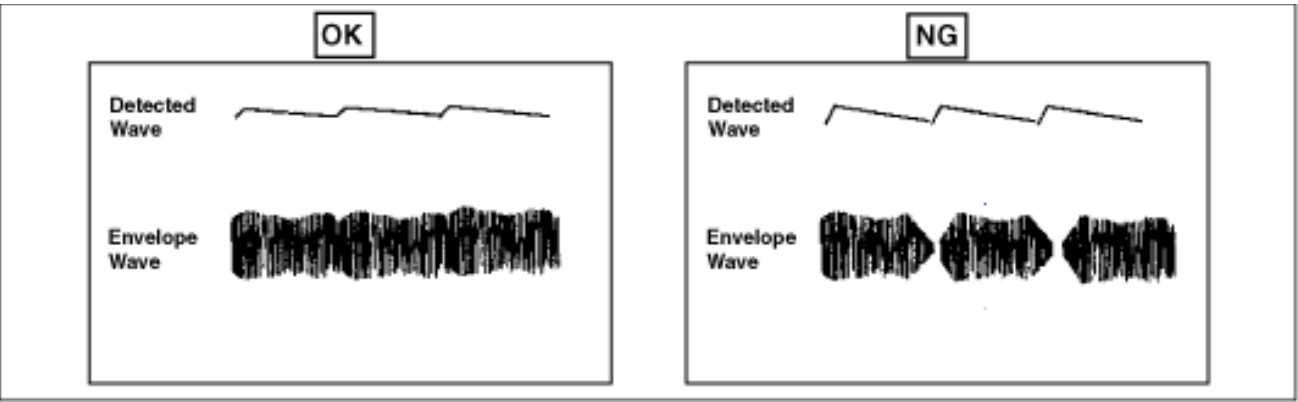


Fig. AD4-1



Fig. AD4-2

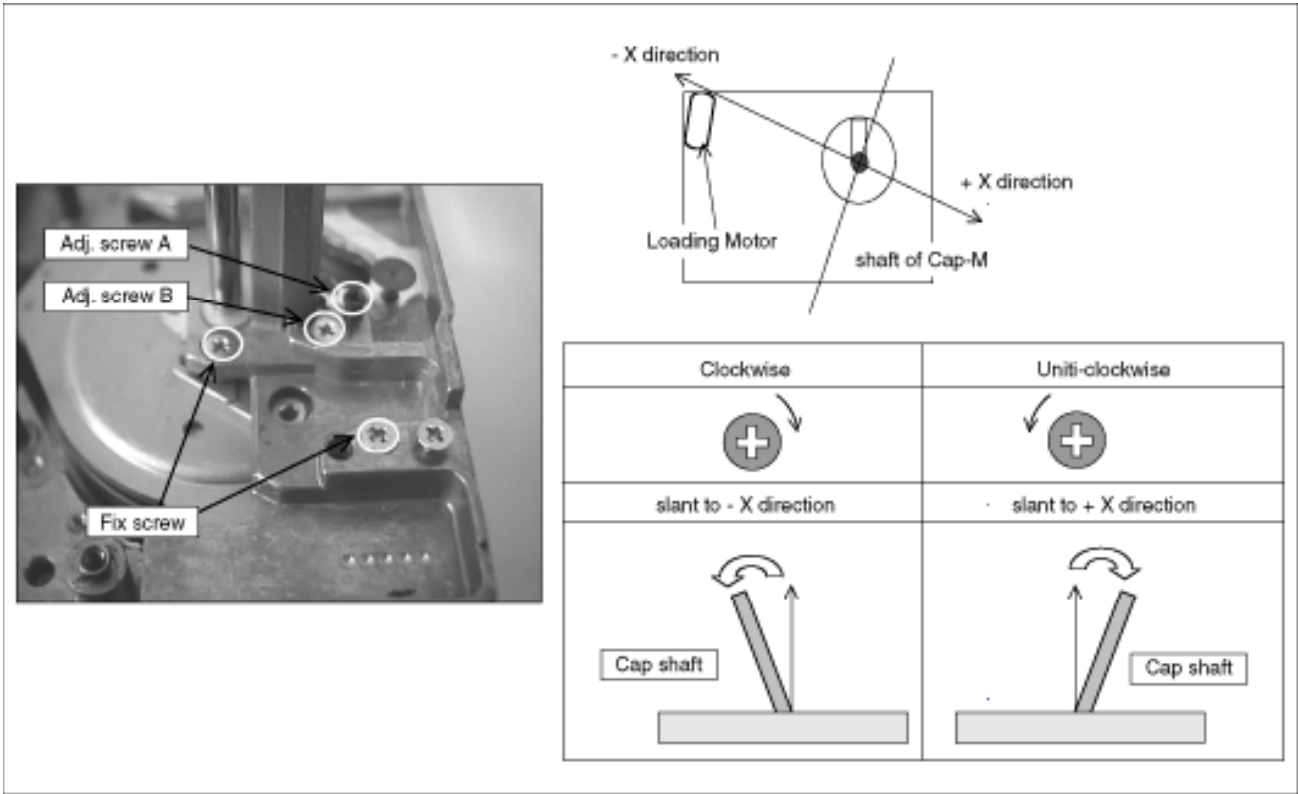


Fig. AD5-1

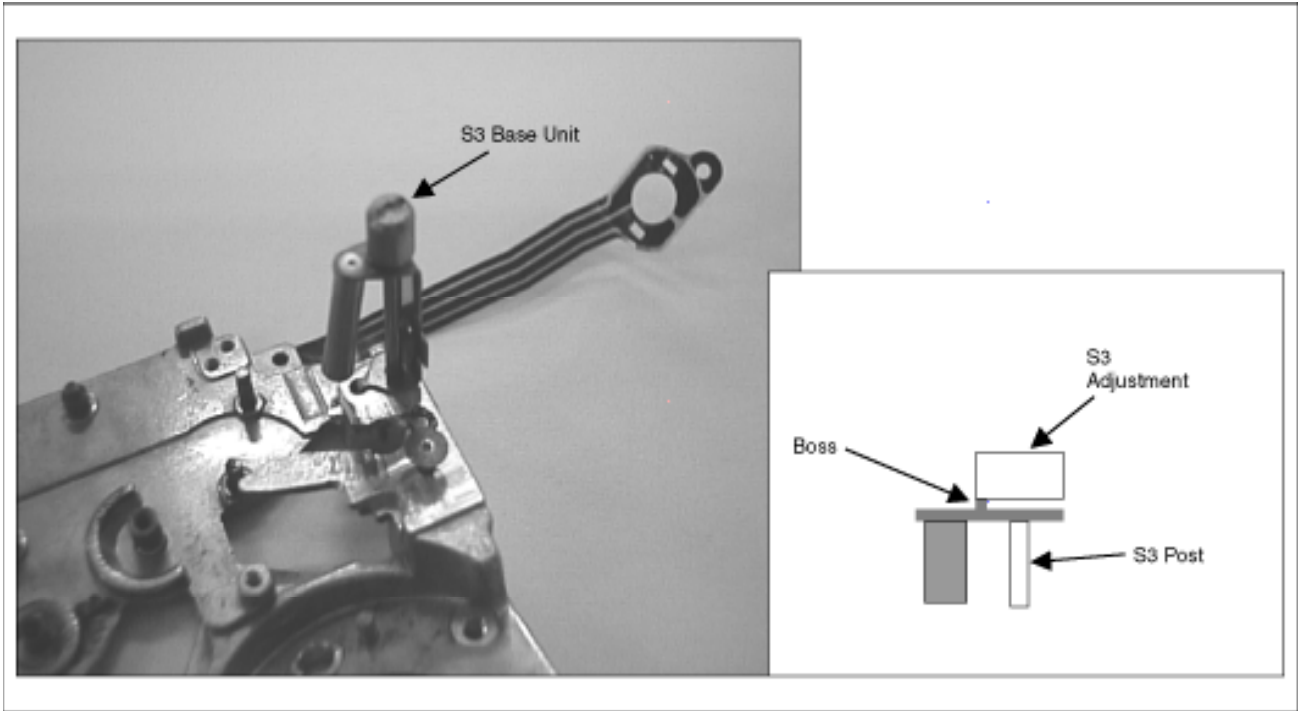


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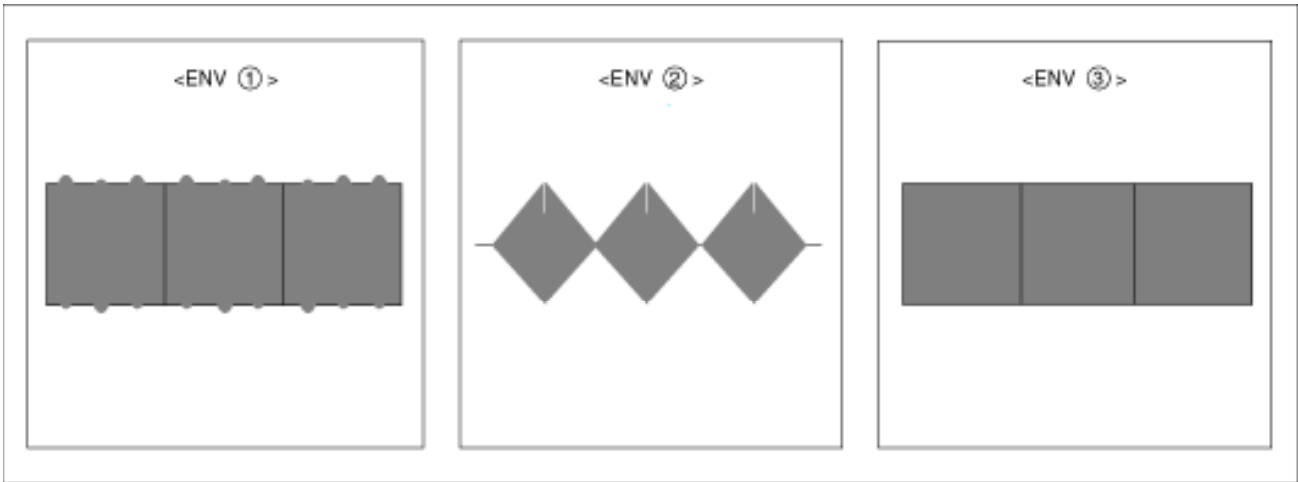


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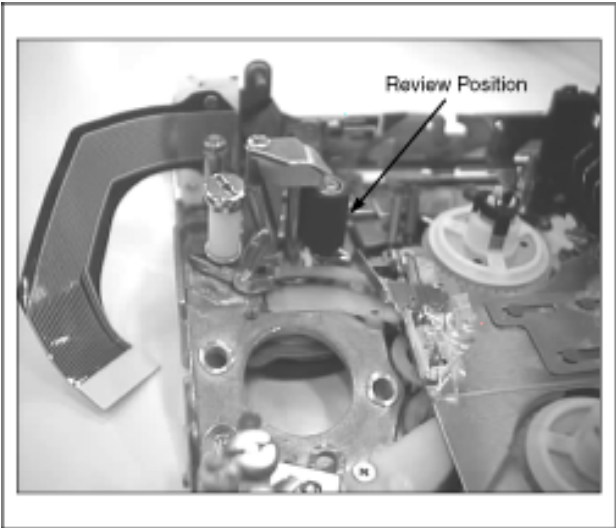
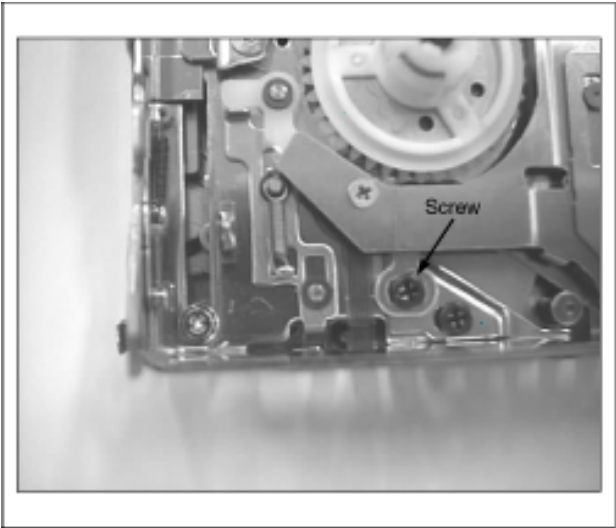


Fig. AD6-2



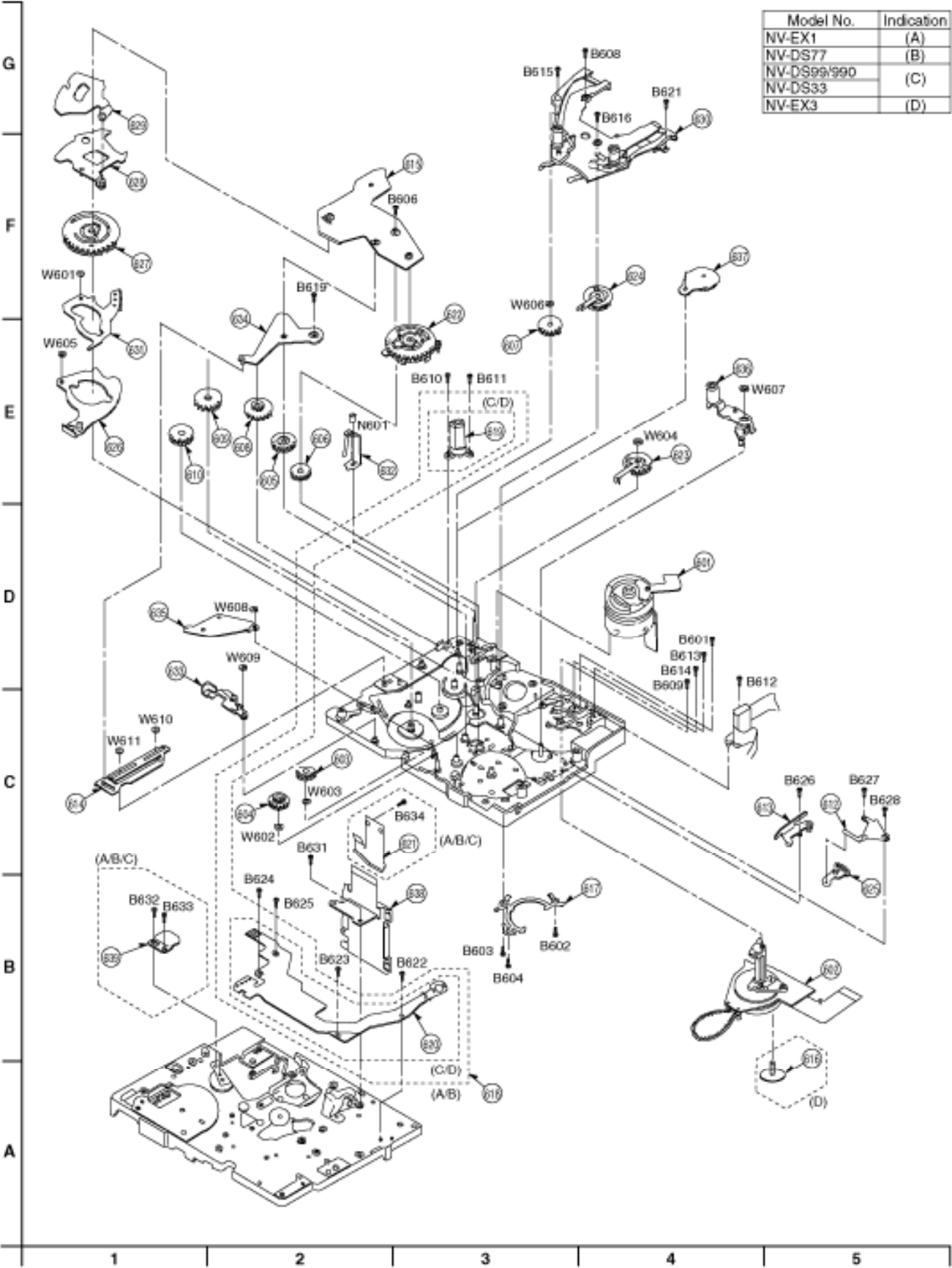
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6.1 Q1& Q2 VCR MECHANISM SECTON (1)

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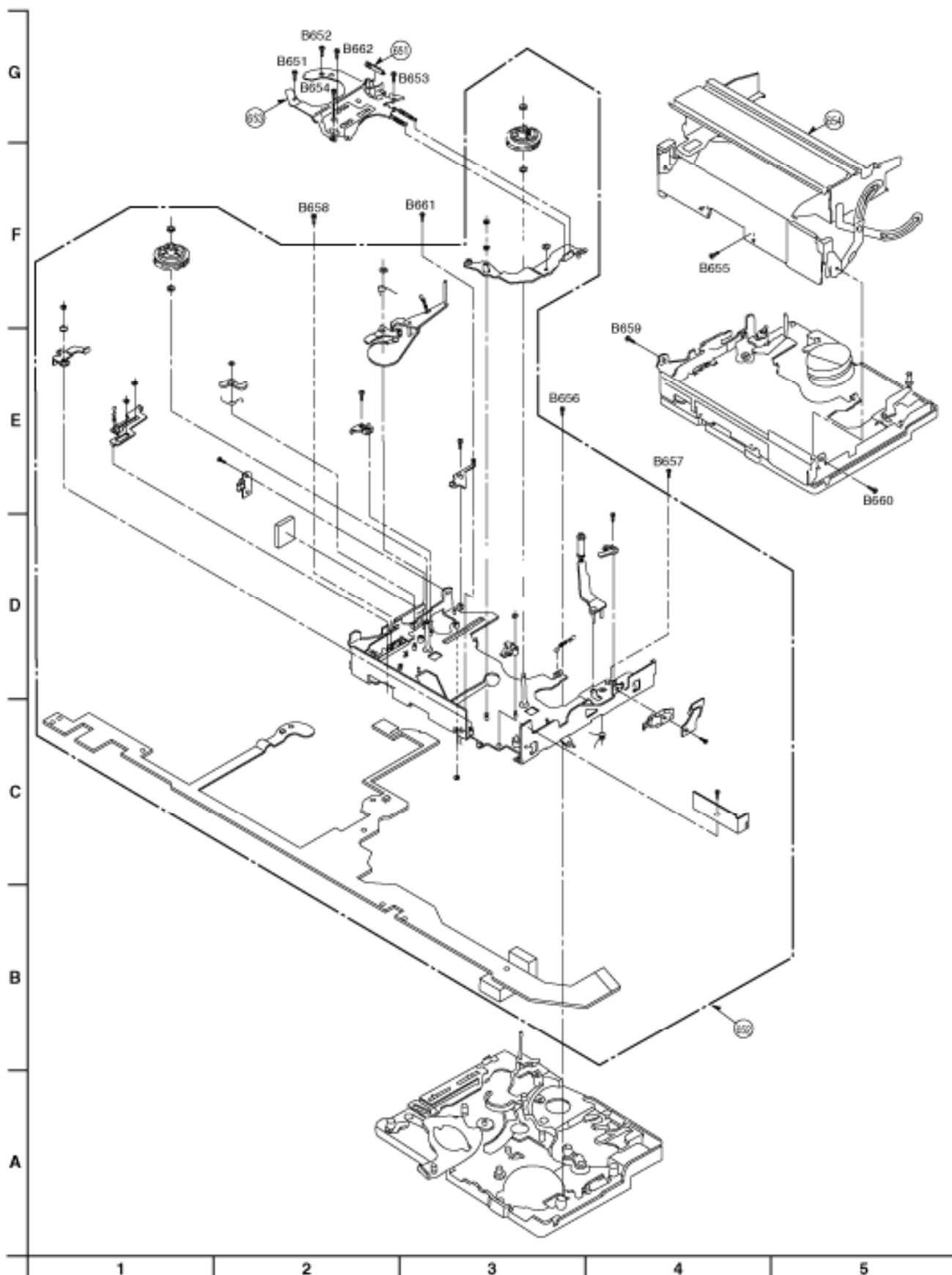


6.2 Q1& Q2 VCR MECHANISM SECTION (2)

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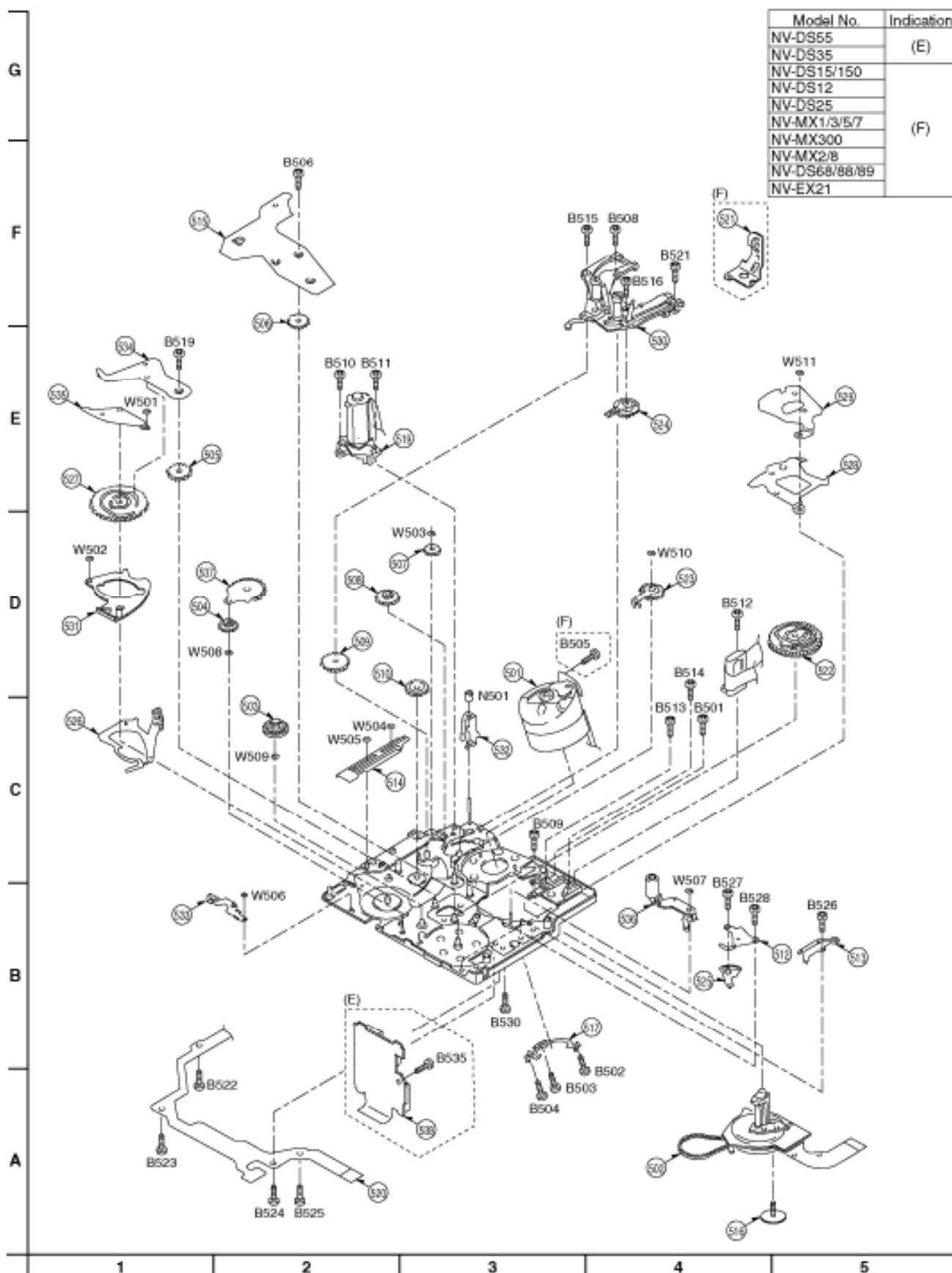


6.3 Q3 VCR MECHANISM SECTION (1)

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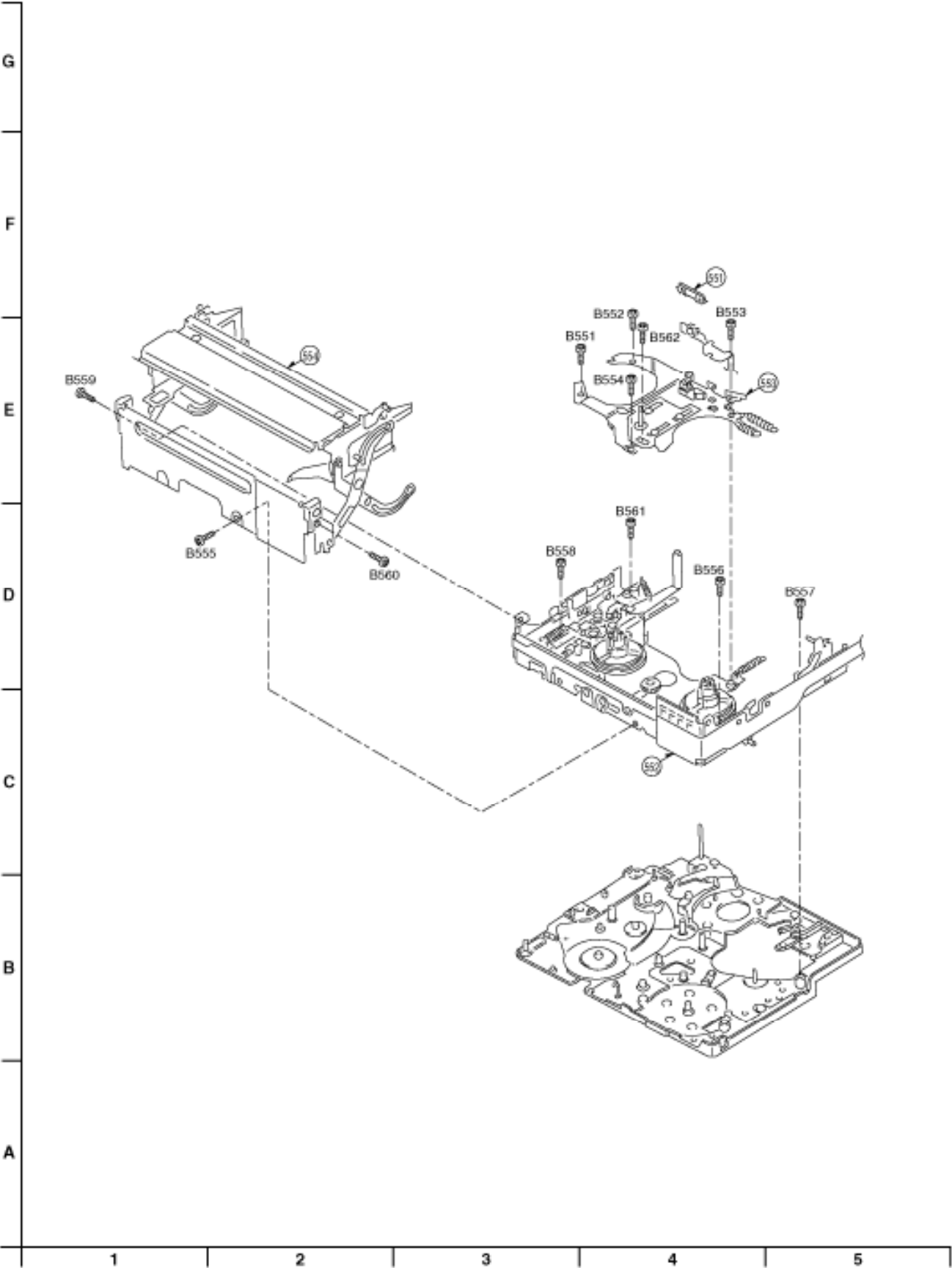


6.4 Q3 VCR MECHANISM SECTION (2)

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7.1 Q1& Q2 VCR MECHANISM SECTION

(1) PARTS LIST

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Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE:
Components identified with the mark Δ , have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
601	VEG1495	CYLINDER U.	
602	DFX25A7VWB	CAPSTAN U.	
603	VDG1284	DRIVE GEAR	
604	VDG1285	CENTER GEAR	
605	VDG1290	INTERFACE GEAR (C)	
606	VDG1291	INTERFACE GEAR (D)	
607	VDG1295	DECELERATION (A)	NV-EX1,NV-DS77
607	VDG1330	DECELERATION (A)	NV-DS99/990,NV-DS33,NV-EX3
608	VDG1296	DECELERATION (B)	NV-EX1,NV-DS77
608	VDG1331	DECELERATION (B)	NV-DS99/990,NV-DS33,NV-EX3
609	VDG1297	INTERFACE GEAR (A)	
610	VDG1303-A	INTERFACE GEAR (B)	
612	VMA9908	PULLEY COVER	
613	VMA9916	T4 GUIDE	
614	VMA9917	TENSION PLATE	
615	VMA0E52	GEAR COVER	
616	VHD1430	CAPSTAN HOLDER	NV-EX3
617	VMC1443	CYLINDER SPRING	
618	L6DA8DKC0001	LOADING MOTOR U.	NV-EX1,NV-DS77
619	VEM0679	LOADING MOTOR U.	NV-DS99/990,NV-DS33,NV-EX3
620	VWJ1297	MECHANISM INTERFACE FLEX.	NV-DS99/990,NV-DS33,NV-EX3
622	K0ZZ00000453	MODE SWITCH	
623	VXA6124	S LOAD GEAR U.	
624	VXA6125	T LOAD GEAR U.	

625	VXA6133	PULLEY COVER	
626	VXA6134	CHASSIS RADON U.	
627	VXA6135	CAM GEAR U.	
628	VXA6136	PINCH BEETLE	
629	VXA6137	RELEASE BEETLE	
630	VXA6138	RAIL U.	
631	VXA6169	BOAT RADON U.	
632	VXA6184	S3 BASE U.	
633	VXL2814	EJECT LEVER U.	
634	VXL2815	TENSION LEVER U.	
635	VXL2816	EJECT ARM U.	
636	VXL2897	PINCH ARM U.	
637	VXL2818	IDLER U.	
638	VYK8485	HEAD AMP U.	NV-EX1
638	VYK8244	HEAD AMP U.	NV-DS77
638	VYK8886	HEAD AMP U.	NV-DS99/990,NV-DS33
638	VYK9102	HEAD AMP U.	NV-EX3
621	VSC4802	SHIELD CASE	NV-EX1
621	VSC4758	SHIELD CASE	NV-DS77,NV-DS99/990,NV-DS33
639	VMA9926	CAPSTAN HOLDER	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
B601	VHD1155	SCREW	
B602	VHD1372	SCREW	
B603	VHD1372	SCREW	
B604	VHD1372	SCREW	
B606	VHD1160	SCREW	
B608	VHD1160	SCREW	
B609	VHD1406	SCREW	
B610	VHD1161	SCREW	
B611	VHD1161	SCREW	
B612	VHD1161	SCREW	
B613	VHD1161	SCREW	
B614	VHD1161	SCREW	

B615	VHD1162	SCREW	
B616	VHD1162	SCREW	
B619	VHD1163	SCREW	
B621	XQN12+B1	SCREW	
B622	XQN12+A1	SCREW	
B623	XQN12+A1	SCREW	
B624	XQN12+A1	SCREW	
B625	XQN12+A1	SCREW	
B626	XQN12+A1	SCREW	
B627	XQN12+A12FN	SCREW	
B628	XQN12+A12FN	SCREW	
B631	XQN12+B2	SCREW	
B632	VHD1162	SCREW	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
B633	VHD1162	SCREW	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
B634	XQN16+B12	SCREW	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
N601	VHN0324	NUT	
W601	VMX2028	WASHER	
W602	VMX2751	WASHER	
W603	VMX2752	WASHER	
W604	VMX2392	WASHER	
W605	VMX2028	WASHER	
W606	VMX2028	WASHER	
W607	VMX2028	WASHER	
W608	VMX2028	WASHER	
W609	VMX2028	WASHER	
W610	VMX2028	WASHER	
W611	VMX2028	WASHER	

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7.2 Q1& Q2 VCR MECHANISM SECTION

(2) PARTS LIST

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Note: 1. Be sure to make your orders of replacement parts according to this list.
 2. IMPORTANT SAFETY NOTICE:
 Components identified with the mark Δ, have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
651	VMD2975	LED HOLDER	
652	VXA6537	SUB SHASSIS U.	NV-DS99/990,NV-DS33,NV-EX3
652	VXA6146	SUB SHASSIS U.	NV-EX1,NV-DS77
653	VXA6151	COVER PLATE U.	
654	VXA6159	CASSETTE UP U.	
B651	VHD1162	SCREW	
B652	VHD1162	SCREW	
B653	VHD1162	SCREW	
B654	VHD1162	SCREW	
B655	VHD1207	SCREW	
B656	VHD1164	SCREW	
B657	VHD1164	SCREW	
B658	VHD1171	SCREW	
B659	VHD1314	SCREW	
B660	VHD1314	SCREW	
B661	VHD1163	SCREW	
B662	VHD1163	SCREW	

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7.3 Q3 VCR MECHANISM SECTION (1)

PARTS LIST

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Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE:
Components identified with the mark Δ , have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
501	VEG1570	CYLINDER U.	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
501	VEG1495	CYLINDER U.	NV-DS35/55
502	DFX25A7VWC	CAPSTAN U.	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
502	DFX25A7VWB	CAPSTAN U.	NV-DS35/55
503	VDG1284	DRIVE GEAR	
504	VDG1285	CENTER GEAR	
505	VDG1290	INTERFACE GEAR (C)	
506	VDG1291	INTERFACE GEAR (D)	
507	VDG1330	DECELERATION GEAR (A)	
508	VDG1331	DECELERATION GEAR (B)	
509	VDG1297	INTERFACE GEAR (A)	
510	VDG1303	INTERFACE GEAR (B)	
512	VMA9908	PULLEY COVER	
513	VMA9916	T4 GUIDE	
514	VMA9917	TENSION PLATE	
515	VMA0E52	GEAR COVER	
516	VHD1430	CAPSTAN HOLDER	
517	VMC1443	CYLINDER SPRING	
519	VEM0679	LOADING MOTOR U.	
520	VWJ1297	MECHANISM INTERFACE FLEX.	
521	VMP6271	RT FLEX. FRAME	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
522	K0ZZ00000453	MODE SWITCH	
523	VXA6124	S LOAD GEAR U.	
524	VXA6125	T LOAD GEAR U.	

525	VXA6133	PULLEY	
526	VXA6134	CHASSIS RADON U.	
527	VXA6135	CAM GEAR U.	
528	VXA6136	PINCH BEETLE	
529	VXA6137	RELEASE BEETLE	
530	VXA6138	RAIL U.	
531	VXA6169	BOAT RADON U.	
532	VXA6184	S3 BASE U.	
533	VXL2814	EJECT LEVER U.	
534	VXL2815	TENSION LEVER U.	
535	VXL2816	EJECT ARM U.	
536	VXL2897	PINCH ARM U.	
537	VXL2818	IDLER U.	
538	VYK8886	HEAD AMP U.	NV-DS35/55
B501	VHD1155	SCREW	
B502	VHD1372	SCREW	
B503	VHD1372	SCREW	
B504	VHD1372	SCREW	
B505	XQN14+B1FN	SCREW	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
B506	VHD1160	SCREW	
B508	VHD1160	SCREW	
B509	VHD1406	SCREW	
B510	VHD1161	SCREW	
B511	VHD1161	SCREW	
B512	VHD1161	SCREW	
B513	VHD1161	SCREW	
B514	VHD1161	SCREW	
B515	VHD1162	SCREW	
B516	VHD1162	SCREW	
B519	VHD1163	SCREW	
B521	XQN12+B1	SCREW	
B522	XQN12+A1	SCREW	

B523	XQN12+A1	SCREW	
B524	XQN12+A1	SCREW	
B525	XQN12+A1	SCREW	
B526	XQN12+A1	SCREW	
B527	XQN12+A12FN	SCREW	
B528	XQN12+A12FN	SCREW	
B530	XQN16+B2	SCREW	
B535	XQN16+B3	SCREW	NV-DS35/55
N501	VHN0324	NUT	
W501	VMX2028	WASHER	
W502	VMX2028	WASHER	
W503	VMX2028	WASHER	
W504	VMX2028	WASHER	
W505	VMX2028	WASHER	
W506	VMX2028	WASHER	
W507	VMX2028	WASHER	
W508	VMX2751	WASHER	
W509	VMX2752	WASHER	
W510	VMX2392	WASHER	
W511	VMX2028	WASHER	

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7.4 Q3 VCR MECHANISM SECTION (2)

PARTS LIST

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Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE:
Components identified with the mark Δ, have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
551	VMD2975	LED HOLDER	
552	VXA6537	SUB CHASSIS U.	
553	VXA6151	COVER PLATE U.	
554	VXA6159	CASSETTE UP U.	
B551	VHD1162	SCREW	
B552	VHD1162	SCREW	
B553	VHD1162	SCREW	
B554	VHD1162	SCREW	
B555	VHD1207	SCREW	
B556	VHD1164	SCREW	
B557	VHD1164	SCREW	
B558	VHD1171	SCREW	
B559	VHD1314	SCREW	
B560	VHD1314	SCREW	
B561	VHD1163	SCREW	
B562	VHD1163	SCREW	

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